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RAW MATERIALS AND FOODSTUFFS IN THE COMMERCIAL POLICIES OF NATIONS

By

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With a Supplement

giving the Papers presented at the Round Table Conference on this subject over which Mr. Culbertson presided at the Institute of Politics during July and August, 1923. The program for this Conference Mr. Culbertson arranged



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SUPPLEMENT

THE PAPERS PRESENTED AT THE ROUND TABLE CONFERENCE ON RAW MA- TERIALS AND FOODSTUFFS IN THE COMMERCIAL POLICIES OF NATIONS

Held at Williamstown, Massachusetts, July and August, 1923

Chairman to the Conference: William S. Culbertson, Vice-Chairman, United States Tariff Commission
Secretary to the Conference: Benjamin B. Wallace, United States Tariff Commission

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The many distinguished authorities who spoke at my conference at Williamstown have likewise my sincere gratitude. They contributed chiefly to the success of the conference. My gratitude is extended not only to them but to Government Departments, Cabinet members and other officials who recognized the importance of the Institute of Politics and sent men who could speak with authority on different subjects in the discussions of my conference.

In addition, I am indebted to those who on the many subjects covered by this volume contributed facts or helped to put the manuscript in shape for publication. It gives me pleasure to

acknowledge the services of the following: Gerard Swope, President of the General Electric Company; A. L. Salt, Vice-President of the Western Electric Company; Wilson Compton, Grinnell Jones, Alan G. Goldsmith, Henry C. Morris, A. W. Ferrin, C. R. DeLong, John L. Bray, W. A. Graham Clark, C. W. Bahr, H. L. Lourie, and Miss R. M. Ridgway.

The views which I express in this book are personal. They are not, it need hardly be said, to be attributed to the United States Tariff Commission, of which I am a member, because of their publication by me. I take full and sole responsibility for all statements of fact and expressions of opinion. In the Supplement the statements made by the respective contributors are upon their own authority.

Raw materials and foodstuffs sound very materialistic. They suggest the necessity of basing our conclusions on hard facts, but I believe deeply in the force and abiding strength of moral and spiritual ideals. In the discussions of this volume I have endeavored, as I stated at the conclusion of my last conference in Williamstown, to keep "our feet on the ground and our eyes on the stars."

This volume is respectfully dedicated to Harry A. Garfield, whose vision and devoted service have created the Institute of Politics.

WILLIAM S. CULBERTSON.



FOREWORD

THIS volume is the product of the Round Table Conference over which Mr. Culbertson presided at the Institute of Politics, at Williamstown, Massachusetts, during July and August, 1923. Mr. Culbertson has brought up to date and augmented the subject matter which he presented at that time in his round table addresses. The Supplement contains all the special addresses made at the different sessions of the Round Table Conference.

Wherever possible footnote references are inserted in the monograph by Mr. Culbertson calling attention to special addresses in the Supplement elaborating and developing special phases of the particular subject under discussion. There is not always complete agreement between the position taken by Mr. Culbertson and some of those who spoke at the conference. This adds rather than detracts from the value of the volume, as it reflects the spirit of freedom which characterized the discussions at the Institute of Politics.

This volume is published with the coöperation of the Institute of Politics. The spirit of that Institute and particularly of the presentation made by Mr. Culbertson is shown in the comment

by Sir Edward Grigg, at the Round Table Conference on August 7th, 1923:

I am very grateful to Mr. Culbertson for letting me say a few words this afternoon, because I should like the opportunity of . . . congratulating Mr. Culbertson himself on the, as it seems to me, extraordinarily fair objective way in which the discussions of this Round Table have been carried on. I marked with great appreciation the fact that, in dealing with subjects which are highly controversial, the facts are always clearly stated without color. And I think it is a very great tribute to him and the way the whole Round Table is conducted that it is so. It is also a great tribute to the Institute of Politics.

In substance and in presentation this volume is a distinct contribution to the facts that determine the wholesomeness of international relations on the one hand, and the need for responsible government in international relations on the other. The subject is handled in a masterful and convincing manner. Mr. Culbertson has balanced well the various interests involved. His conclusions looking toward a more just and effective world order he has reached with the poise of the scholar and of the experienced administrator.

CLYDE L. KING,
Editor.



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Important Notice to Members of the Association

The 1944 Annual Meeting of the American Society of Political Scientists will be held at Princeton, New Jersey, on Friday and Saturday, November 10 and 11, 1944. The program of the meeting should be sent to the Secretary of the Association, who will make every effort to insure a high level of attendance.

The General Theme of the Annual Meeting will be

AMERICA AND THE POST WAR EUROPEAN SITUATION

There will be a morning session on Friday and a morning and an afternoon session on Saturday. The final program of the meeting will be published in the Association's Bulletin, which will be sent to all members.

Friday Morning

9:00 A.M. - Registration and Breakfast

Friday Afternoon

2:00 P.M. - Dinner and Reception

Saturday Morning

9:00 A.M. - Breakfast and Registration

Saturday Afternoon

2:00 P.M. - Dinner and Reception

Sunday Morning

9:00 A.M. - Breakfast and Registration

Sunday Afternoon

2:00 P.M. - Dinner and Reception

Will you please send your name and address to the Secretary of the Association, who will make every effort to insure a high level of attendance. The final program of the meeting will be published in the Association's Bulletin, which will be sent to all members.

For a complete list of speakers and topics, see the Bulletin of the Association of Political Scientists, which will be sent to all members.

Published by the Association of Political Scientists, 1944.

Raw Materials and Foodstuffs in the Commercial Policies of Nations

By WILLIAM S. CULBERTSON

CHAPTER I

THE BASIS OF NATIONAL POWER

WESTERN civilization has been deeply influenced by economic factors. Every phase of our life reflects the results of our modern methods of production and distribution. So much that goes on about us we accept as everyday commonplaces. Yet these very commonplaces constitute the basis of our life. The production of products in factories and on the ranch or farm, the flow of commerce from one section or country to another, the accumulation and investment of capital, the development of transportation on land and sea, the rapidly growing systems of communications, the distribution of raw materials and energy resources—these are factors which shape and in some cases determine our political and social life.

They are often obscured by political and personal conditions and the results are proposals or conceptions which have no relation to the essential facts. For example, it is proposed to outlaw war by resolution. This is a naïve conception of our modern world which contemplates the removal of the possibility of war by a mere agreement that war shall not be. Just as far from the truth, however, is the contention that war is an inevitable accompaniment of human relationships.

ECONOMIC CAUSES OF WAR

The objective occasions of war would soon disappear if the external causes tending to make war inevitable were

removed. But we cannot stop war by peace resolutions so long as we have those external causes operating. The efforts of those who seek peace must be concentrated upon the removal of the causes of war and the provision of guarantees of security which will make armed force unnecessary. If we are to understand our modern world, we must recognize that war follows in necessary sequence upon causes arising out of the processes of production, trading and financing. Personal and political factors necessarily are added to and at times obscure the economic causes of rivalry between nations. Not infrequently the economic causes of war are entirely lost sight of at the time of crisis. Propaganda is resorted to. In the stress of patriotism and sentiment the purposes of the war are summed up in a phrase or idealized declaration which may be related only remotely to the basic causes of the struggle.

Wars are frequently ascribed to political and personal differences which may be the immediate cause of the conflict, but which have arisen from more fundamental economic differences existing between the warring nations. The complexity of modern life is such that even the close observer often fails to realize the forces which are operating—but this is not strange since the very leaders in the business of producing, trading and financing seldom understand the political consequences which may follow upon their daily acts.

National security and the preservation of world peace depend upon an analysis of the economic basis of our society and the provision of means of adjusting economic disputes before they reach the stage of political differences between nations. Nations which are at peace today can argue themselves into a false security through peace societies, and through pleasant references to their past relations, but if economic rivalry is permitted to go on unrestrained, unsuspecting peoples will awake some morning and find themselves at war. War is not a necessary accompaniment of human relationships, but the causes of war are imbedded in our economic life and, if they are not removed, war follows inevitably upon them.

For the purposes of the present discussion it is not necessary to consider the question whether or not all international wars are caused by economic rivalry. Certainly history records wars to which the economic factors have had remote, if any, relation. The important thing to recognize is that wars do result from economic causes. The relations of nations are not always complementary; they are often antagonistic. Competition between two national groups for markets, sources of raw materials and opportunities to invest capital, if persisted in and if vital to national welfare, sooner or later reflects itself in rivalry between governments and peoples. This may be proper or improper. But before we can have an intelligent opinion on it we must recognize that it exists. To speak of the economic causes of war has been considered improper and even disloyal. It must not be so any longer. If the menace of modern war, which now is the curse and disgrace of our civilization, is to be removed, we must know what we are fighting about.

THE BACKGROUND OF MODERN COMMERCE

1. *Territorial Conquests*

A glance at the background of our modern world is necessary to an understanding of its problems. The first fact of importance is the territorial conquests of the non-European world by the discoverers, explorers, adventurers and settlers in the 16th, 17th and 18th centuries. The first nations to participate actively in this conquest were Portugal and Spain. The Portuguese ships went east around the southern cape of Africa and made their way to India and the Spice Islands. They thus broke the monopoly which the Venetians held of the trade with the East by way of Egypt. Trade in those days consisted chiefly of articles of small bulk and high unit value such as teas, spices and silks. The Portuguese Government maintained a state monopoly in trade with the East and all interlopers were dealt with severely.

Spanish ships sailed westward and laid the foundation of Spanish culture in the Americas. Spain also sought to establish trade monopolies. Not only were other Europeans excluded from trade with the Spanish colonies in the new world, but the movement of Spanish ships was strictly regulated in accordance with what was conceived to be the interest of the state.

It is a striking commentary on the religious and political conditions of the 15th century that the Pope could divide the non-European world by the Treaty of Tordesillas (1494) between Spain and Portugal.

The trade monopolies of Portugal and Spain soon led the Dutch to seek a greater share of the profits. No longer content merely to act as distributing agents from Spanish and Portuguese ports, the Dutch attacked boldly the Portuguese in the east and

the Spanish in the west. Before the end of the 17th century, Portugal had lost to the Dutch the Spice Islands, including Ceylon, and retained only a few trading points on the coasts of Asia and Africa. The Dutch had also established settlements in Guiana and at the Cape of Good Hope. The Dutch trade conquest had been accomplished through powerful trading companies which were granted the sovereign rights of making treaties, raising armies and conducting local government, and war was looked upon as a necessary accompaniment of a business venture.

In the meantime, France and Great Britain became interested in trade with the non-European world. A blow was struck by the English about the middle of the 17th century against Dutch trade by the enactment of stringent navigation laws the purpose of which was to "clip the wings of the Dutch." The Dutch trade monopoly was gradually whittled down until, in the 18th century, France and Great Britain faced each other as the chief colonial rivals of the world. Just before the middle of the 18th century began that great struggle between these countries for world supremacy. It was continued in the Seven Years War (1756-1763), and did not conclude until the Congress of Vienna. France was ousted from Canada, from India and from various lesser colonies. Thus, in spite of the loss of the thirteen American colonies which occurred during this period, Great Britain laid the foundation of her great empire.

The effect of the discoveries and conquests upon the non-European world was far-reaching. In the temperate zone outside of Europe, the foundation was laid for settlement colonies which were subsequently to become nations, rivaling in power the nations of Europe. The United States became independent and, with the purchase of the Louisiana

Territory from France, the foundation was laid for a great state. The beginnings of a nation appeared in South Africa. In South America colonies developed which early in the 19th century became independent nations.

Africa, except in the extreme south and in the extreme north, was hardly touched by this first wave of conquest of the non-European world. Trading posts were established on the coast, but the life of the interior was practically in no case affected. The civilizations of Asia were not affected by Western ideas. In a few isolated instances, as, for example, Java, the life of native peoples was interfered with, but in general their manners and customs, both in Africa and Asia, remained undisturbed.

The character of trade and industry during the centuries preceding the Congress of Vienna contrasted strikingly with trade and industry today. The ships were small and the quantity and variety of products which were carried extremely limited. The goods carried were chiefly luxuries and had relatively little relation to industry as it was then conducted. Industry itself was in the handicraft stage. Capital had not accumulated; division of labor had not developed; the laborer performed practically all of the processes necessary for the making of any given article. He sold it himself and thus received the full value of his labor. Those raw materials used were the raw materials close at hand and, even in such cases, the methods for preparing them were crude as compared with those of the present day.

The state policy which in general guided the statesmen of this period has been called mercantilism. Its chief principle was the use of the power of the state to gain economic and political prestige. Typical policies of the period were harsh navigation laws, high

tariffs, prohibition, trade restrictions and commercial wars. Colonies were desired because it was believed that they would add to the economic and political strength of nations. World affairs were directed from Europe and in the interests of European nations. The non-European world consisted of pawns in the game played by European states.

2. *The Industrial Revolution*

The second factor of great importance which lies at the basis of our modern life is the advance in production, science and business organization which began at the end of the 18th century. Its effects were felt first in Great Britain. In that country, the basis of the new industrialism was laid which now prevails in Western states and is spreading to Asia. The beginnings of this revolutionary change in our economic life were characterized by a series of great mechanical inventions. Steam was applied to machinery. The old spinning wheel began to give place to power spinning; the hand loom to the power loom. The cotton gin was invented. Technical methods handed down from father to son, and in their essentials centuries old, gave way gradually before the new machine production. The early inventions were but a beginning. As time went on, the complex structure of modern industry was reared. Machinery was gradually applied to practically every industry. Scientific discoveries increased the efficiency of industry. Chemistry and physics, biology and geology all contributed to laying the foundation of industry, which has led to the characterization of our life as a machine civilization.

Laborers no longer worked individually, but were gathered into factories where they obtained a share of the income of society from a wage. The

control of industry fell into the hands of a capitalistic class. Capital accumulated in large quantities and business organization was perfected. Production began on a large scale. Great quantities of standardized products were turned out so that things which had been luxuries for the rich became the comforts of the common man. In addition to capital, business organization and labor, large-scale production also required power to turn the machinery, large quantities of inexpensive raw materials and transportation. Coal became the very basis of industrial development. It was England's coal which contributed not the least to her rapid rise as an industrial power. Raw materials, frequently bulky, had to be transported long distances.

Soon after the middle of the 19th century this was made possible by a further improvement in the technique of our civilization. Steam had been applied to transportation and there was now rapidly developed a vast network of railroads and steamship lines. The character of transportation was changed. The carrying capacity had increased and now bulky foodstuffs and raw materials became important factors in the carrying trade of the world. Communication was improved. Not only was the useful postal service established, but electrical communication—cable and radio—virtually abolished time and space in the distribution of news and commercial information.¹

During this period political philosophy, as well as other lines of thought, was dominated by the idea of individualism. This philosophy appealed to the prejudices and served the purpose of the new industrial and trading class

¹ See page 240. *The Effect of Cable and Radio Control on News and Commerce.* Admiral W. L. Rodgers, United States Navy.

in Great Britain. It was a part of the general movement away from restraint in all lines, which characterized the latter part of the 18th century and the first part of the 19th century. It first was applied to domestic industry with disastrous social effects and later became the basis of the free-trade movement in England.

3. *Modern Imperialism*

A third factor which characterizes our modern world and which followed upon and is to some extent a consequence of the first two factors is the growth of a modern type of economic imperialism. The roots of this development are found in the nature of capitalism itself. The capitalistic organization of machine production tends to produce more goods than can be sold at a profit. Capital also tends to accumulate rapidly. In other words, consumption both of goods and of capital tends to lag behind production. The capitalistic class, therefore, which is in control of modern business, is constantly seeking new markets in which to dispose of goods and new opportunities for the investment of surplus capital.

These statements are not made in condemnation of capitalism. For the time being, no more successful organization of our economic life is available and capitalistic production is probably the best means for the development of world resources. However, it is necessary, if maladjustments and conflicts are to be avoided, that we understand fully the tendencies and possibilities of capitalistic expansion.

These tendencies of capitalism appeared first in Great Britain. Other nations, however, particularly the United States and Germany, soon realized that their political strength depended upon their economic strength and they began to follow England's ex-

ample. They erected tariffs against English goods. The United States, being rich in natural resources and having a vast home market for its own industries, was at first little interested in foreign trade and in the development of a colonial empire. But Germany, like England, began to look abroad for markets and for sources of raw materials.

A second conquest of the non-European world, which began about 1880, was destined to be more thorough and far-reaching in its consequences than the conquest which followed the discoveries of the 15th and 16th centuries. European nations, barred from Latin-America by the Monroe Doctrine, turned their attention to Africa, Oceania and Asia. Africa was partitioned. France and Great Britain from old possessions on the coast pushed into the hinterland and preëmpted large areas of "unoccupied" land. Leopold launched his venture—a business venture—in the Congo region. Portugal clung to those parts of her colonies that were left after the first impact of the colonial conquest of the continent. Germany, realizing that it was behind in the colonial race, annexed a million square miles of tropical Africa. A like scramble for territory went on in the Pacific. In Asia, spheres of influence were staked out within which the respective Western nations were to have first lien on commercial privileges and which were to become protectorates or colonies if the Asiatic governments continued to crumble before Western "civilizing" methods.

Along with this extension of European political control over Africa, Oceania and Asia went the development of trade. European industries sought larger profits in the sale of their products overseas. Enormous trading companies, in some cases with political power, were chartered and granted con-

cessions to trade within large areas of Africa and of the Pacific Islands. In Asia Western products were offered to the natives in increasing quantities.

Then followed a period of the investment of capital. Concessions were granted for the exploitation of minerals and for the development of plantations. Large sums of money were loaned to weak governments in Southern Asia and in Northern Africa. Europe began to force itself, through its economic organization, into the very life and civilization of the African and Asiatic peoples.

CONSEQUENCES OF ECONOMIC IMPERIALISM

Two consequences (of the many)² of this rapid expansion of industry, trade and finance are especially significant. In the first place, it has increased the rivalry and conflict among Western nations. The building of armaments during the last fifty years is traceable to the rivalry of European areas. The ideas of economic imperialism thus affected the conduct of modern industrial states. In many of its features the situation was not unlike that created by the mercantilism of Colbert, Cromwell and Frederick the Great. The power of the state was thought to depend upon colonial possessions, the control of markets and resources of raw materials, and upon the investment of capital in economically backward countries, and to get and hold these economic privileges armaments and war were regarded as justifiable.

The same rivalry is illustrated by the contest between certain nationals of the United States, Great Britain and France, supported in various degrees by their respective governments, for

the control of petroleum concessions. Furthermore, the struggle between France and Germany for the control of the Ruhr is a struggle for the national power which that nation will have which controls the Lorraine iron, the Ruhr coal, and the steel plants of Germany and of France.³

The second consequence of the expansion of the economic life of the West is a clash between Western and Oriental civilization. The people of Asia resent being Europeanized. Japan adopted the material machinery of the West and with it threw off Western control. Western methods in Asia are forging weapons which may some day be turned against the West.

CRITICS OF ECONOMIC IMPERIALISM

Economic imperialism in the modern world has not been without its critics. Counter-forces have at several points operated effectively.

Nationalism has in some instances been a counter-force. Japan, India and Persia are examples of developing nationalities which have checked modern imperialism, but one of them—Japan—has developed an imperialism of its own. Protective tariffs—an expression of nationalism—in the self-governing Dominions of the British Empire have tended to decentralize the industry of Great Britain. The rise of small nationalities in Europe is also a protest against an imperial state.

The labor movement, particularly in Great Britain, has been opposed to modern economic imperialism. Its leaders have been effective in their analysis of the overseas' growth of capitalism.

Finally, there have been a number of movements in favor of international

² See page 256, for a discussion of population and other factors by Professor Archibald C. Coolidge, of Harvard University.

³ Leith, C. K.: "The World Iron and Steel Situation in its Bearing upon the French Occupation of the Ruhr." *Foreign Affairs*, June 15, 1923, p. 136.

coöperation which, to a greater or lesser degree, have modified the force of imperialism. They include missions, international societies, scientific and statistical organizations. The chief reason why these agencies have not been more effective is that they do not seem to understand the real issues involved.

ECONOMIC RIVALRY IN RAW MATERIALS AND FOODSTUFFS

Of the larger world questions briefly summarized thus far in this chapter, the problem of raw materials and foodstuffs is one. This problem will serve to illustrate the issues which arise and the causes of economic rivalry in the modern world. No more effective way to check the tendencies which today lead toward war can be found than by analyzing and giving publicity to the basis of national power.

The power of a nation rests primarily upon the independence and energy of its population. This, however, is not sufficient to make a nation powerful in world affairs. There must be an industrial, an economic basis, which gives the nation strength and power. There must be economic diversification. An adequate food supply is es-

sential, as is also a development of manufacturing industries.

Manufacturing, however, cannot develop unless a nation has adequate energy resources and a control of adequate supplies of essential raw materials. The chief sources of energy used in production and distribution are:

Coal
Petroleum
Water power

The energy resources of different countries is dependent upon their geographical and geological positions, and upon this, to a large extent, depends their political power. The following is a discussion of the energy resources of certain countries by Dr. Thomas T. Read, of the Federal Bureau of Mines:

The real basis of power of a nation is its energy resources, rather than its manpower strength. The modern way to use the energy of a man is to employ it in a way similar to the little detonator of the big explosive shell; the little charge sets off the big one and does an amount of work far in excess of its own capacity. The energy output of an average workman is about a tenth of a horse-power. The energy expended by a coal miner in an eight-hour day thus amounts to about that available

ENERGY RESOURCES

COUNTRY	COAL (MILLIONS OF HP. YRS.)	PETROLEUM (MILLIONS OF HP. YRS.)	WATERPOWER (MILLIONS OF HP. YRS.)
United States.....	500,000	400	37
China*.....	200,000	60	20
Germany.....	48,000	2	2½
Canada.....	40,000	40	22½
Great Britain.....	27,000	(?)	1
Australasia.....	19,000	(?)	4
Russia.....	17,000	280	16
Poland and Czechoslovakia.....	14,000	45	1
India.....	11,000	70	27

* Based on estimate of coal resources given in *Coal Resources of the World* by International Geological Congress. Later estimates appearing in the *China Year Book* credit China with very much smaller amounts of coal.

from 2 pounds of coal. A Japanese miner, who gets out 1,400 pounds of coal a day, thus multiplies his energy by 700. It is somewhat like planting one grain of wheat and having 700 grow from it. The American miner gets out 8,800 pounds of coal in a day and so multiplies his energy by 4,400. There are 41 million wage earners in the United States and their energy output is a little over 4 million horsepower, or only 9 times the potential energy output in the form of coal, of 100 miners. The power minerals, coal, petroleum and water power, are, therefore, the real sources of strength in an industrial civilization.

Just where the United States stands on this basis is best brought out by some comparative figures which may be stated in millions of horsepower years, so that the figures will be easier to handle. Taking the estimates of probable and possible available coal, petroleum and waterpower in the principal countries of the world, and reckoning them in terms of millions of horsepower years, they line up something like this: (See table on page 7.)

No other country than these has as much as one fiftieth part of the total energy resources as the United States, and it is quite evident that many parts of the globe never

'What of industrial alcohol from tropical vegetation?

The figures of the energy resources of the world called forth some discussion in open conference. General Crozier questioned the authority of the figures given in regard to the coal resources of China (i.e. two hundred thousand million horse power years). He stated that the head of the Chinese Geological Service had told him that Chinese coal would not last 40 years if used as rapidly as that of the United States was now being used.

Mr. Edward P. Warner, of the Massachusetts Institute of Technology, pointed out that the figures show immensely greater totals for the coal resources than for oil and water power. The present consumption of oil in the United States would exhaust our supplies in 50 years and the present world consumption would exhaust the world's oil, excluding shale oil, within approximately the same period. An amount equal to the power now used could be obtained from water. With the improvements in the transmission of electrical power it is daily becoming more feasible to make use of water power. Three decades ago electricity was transmitted at

can support an industrial civilization of any magnitude, for they simply have not the resources of energy.

Countries differ greatly in the degree to which they have developed their resources. The United States had resources before 1492 even greater than now, because they were all unused. China is in somewhat the same position today as the United States was 400 years ago. Japan, on the other hand, is an example of a country that has developed its very limited resources to a large extent. Japan's energy resources are less than one five-hundredth part of those of the United States and therefore the Jap-

10,000 volts pressure; recently it had been sent experimentally at one million volts, saving 99 per cent of what would formerly have been lost on the way. In the long run, therefore, we can count on greater power from water than from oil. On the other hand, there is nothing to take the place of the lubricating oils derived from petroleum. To a certain extent, but only to a certain extent, castor oil and graphite can take its place. Lubricating oils are as essential to the age of machinery as is power. The power now derived from gasoline and other lighter oils can be obtained from industrial alcohol. Our policy, therefore, should be to save our petroleum for lubricating oils and develop our water power resources to furnish power.

Professor Campbell commented upon the prospective exhaustion of our oil resources, drawing the moral that we should improve our methods of consuming coal. For instance, there had developed a method of gasifying coal completely in one process. Instead of producing gas and coke, this process produces gas with no residue except ash. The same amount of plant can thus turn out $2\frac{1}{2}$ times as much gas as before. The lower-grade coal which will not stand the cost of transportation can thus be turned into gas and the power derived from this gas can be transmitted as electrical power.

Dr. Adam Shortt stated that Western Canada has no water power east of the Rockies and no coal through considerable areas. The Canadians, however, are experimenting with the production of electricity from lignite in big generating stations situated at the mines, and the power is easily distributed through the Prairies in the form of electricity.

Miss Ila Grinnell raised the question whether the production of industrial alcohol on a large scale might not produce changes in the suggested ranking of the energy resources of the nations.

anese cannot afford to use their energy for rough uses that require large quantities such as in breaking stone. Weaving silk or decorating porcelain requires but little energy in proportion to the selling value of the finished product, and the natural development of the Japanese people will be toward industries that require a high degree of skill and relatively little energy.

ESSENTIAL RAW MATERIALS

Equal in importance are certain essential raw materials, especially iron ore. An exhaustive list of raw materials is not necessary in the present discussion. The following list, however, will be suggestive of the scope of the raw materials problem:

Animal

Hides and skins
Silk
Wool

Mineral

Metals

Antimony
Chromite
Copper
Graphite
Iron ore
Lead
Magnesite
Manganese
Mineral oils
Molybdenum
Nickel
Platinum
Quicksilver
Silver
Tin ore
Tungsten
Vanadium
Zinc

Chemical raw materials

Iodine
Nitrate
Phosphate
Potash
Sulphur and pyrites
Salt

Clays and building materials

Asbestos
China clays

Lime

Mica

Vegetable

Abaca (Manila hemp)
Camphor
Castor beans and castor oil
Gutta percha
Hemp
Henequen
Jute
Kapok
Resin
Rubber
Shellac
Sisal
Turpentine
Vegetable oils

An equal degree of importance in the commercial policies of nations is obviously not to be attached to all raw materials. Some are more vital in national life than others. A division might be made between those energy resources and raw materials which are, and those which are not, likely to cause international complications. But such a division is relative. Those resources and materials which are likely to cause international difficulty are the energy minerals—coal and oil—which are essential and exhaustible and a considerable number of products which are more or less complete natural (or artificial) monopolies of certain countries or groups of countries. Others may become temporarily important as a result of temporary interruption of a supply or of transportation, and in time of war the need of self-sufficiency in a wide range of apparently unimportant materials is emphasized dramatically.

THE COMMERCIAL POLICIES OF NATIONS

What has been said indicates that in the modern world geology and geography have a close relationship to the commercial policies of nations. Ignorance of this fact or a failure to ad-

mit it candidly has been responsible for many misguided efforts toward peace. A desire to control coal and iron ore deposits or petroleum deposits has at times been the determining factor in boundary disputes. It is a fact of major importance that energy resources and essential raw materials are not equitably distributed over the earth's surface. Nations, favored geo-

logically or climatically, tend to shape their policies to conserve, develop and even monopolize the resources within their own borders; nations,⁵ poor in resources, if they aspire to a position of influence in the councils of nations, seek colonies, spheres of influence, or guarantees which will assure them a supply of the essentials necessary to building a modern economic state.

CHAPTER II

IMPORT DUTIES ON RAW MATERIALS

Perhaps the most obvious measure used by nations to increase their self-sufficiency and to diversify their economic life is the import tariff. Nations usually show their first concern for the conservation and development of resources within their own borders. In the case of countries favorably located climatically and favored by nature with geological deposits of important raw materials, this aspect of commercial policy assumes greater importance than it does in the case of countries having limited resources within their own borders.

About the time free-trade economists had reached, to their satisfaction, the

conclusion that tariffs were to be abolished, the revival of economic rivalry among nations restored tariffs to a prominent place in the commercial policies of the world and today they are probably the most universal government measure affecting world commerce. Tariffs, it is true, have been of chief significance in the development of manufactures. Indeed, the manufacturing class in industrial countries has generally been opposed to duties on raw materials, and in European countries the rule has been to retain industrial raw materials on the free list.

A CLASSIFICATION OF RAW MATERIALS

In the United States, however, the political influence of the agricultural,⁶ forest and mining interests has resulted in the imposition of import duties on many raw materials. For this reason, as well as because of the American interest in the problem, import duties on raw materials will be considered with particular reference to the United States. A classification is presented

⁵ A fairly loose use of the word "nation" seems unavoidable without constantly interrupting the train of thought with explanation. The word "nation" may mean in this discussion the people of a given organized political unit, or their government, or even groups of nationals operating more or less with the approval or support of their government. It is said, for example, that Great Britain has many millions invested in a given country. What is probably meant is that British citizens have invested in private enterprise in that country or they have bought bonds issued by the foreign government. Governments usually, but not always, are interested indirectly. The part they play ranges all the way from exercising a general oversight of the activities of their nationals, to see that fair and equal treatment is meted out, to masking in the guise of a private concern to accomplish definite political ends.

⁶ See pages 200, 201 and 207. *European Agricultural Policies*, Dr. F. M. Surface, Department of Commerce; *Relation of Population Growth and Land Supply to the Future Foreign Trade Policy of the United States*, Dr. L. C. Gray, Department of Agriculture; *Discussion on Agricultural Policies*, Mr. W. S. Culbertson.

as an appendix to this chapter which emphasizes the distinctions in commercial policy. The first division is on the basis of the dependency of the United States upon foreign sources. The second division is between reproducible and non-reproducible⁷ raw materials. The former are those which can be reproduced over a comparatively brief period of time by cultivation or breeding (*e.g.* cotton or rubber). The latter are those raw materials which once consumed are not at all replaceable by man (*e.g.* minerals), or at least not within a brief period (*e.g.* forests). Minerals are classed as non-reproducible with a full appreciation of the fact that prospecting may result in the discovery of new reserves. High prices or national necessity may thus bring out new supplies, but the distinction still remains and the possibility of exhaustion is merely removed to a later time.

Any classification of this character is necessarily a rough approximation. Admitting that different opinions may place a given product in different groups, the broad classifications are of significance in analyzing the general problem.⁸ This classification places raw products into three groups:

⁷ See page 189. *The Practical Need for International Conservation of Minerals*. Mr. C. E. Juhlén, Bureau of Mines.

⁸ The following classification was adopted by the British Dominions Royal Commission in its report in 1917 (Cd. 8462), pp. 66, *et seq.*:

MATERIALS OF WHICH THE WORLD'S REQUIREMENTS ARE MAINLY OR WHOLLY PRODUCED WITHIN THE EMPIRE

We doubt whether it was realized before the war, that the Empire had substantially a monopoly of the world's production or distribution of certain most valuable commodities of commerce. Even if the fact were dimly recognized, no effort had been made by the Governments of the Empire individually, or in coöperation, to use these commodities to their commercial advantage.

Canada produces much the largest proportion of nickel, cobalt and asbestos, and, in conjunction with India, of mica.

I. Practical Total Dependence of the United States on Foreign Countries.

II. An Adequate Domestic Supply and in Some Cases an Exportable Surplus.

III. Not Produced in Sufficient Amounts in the United States to Satisfy Home Consumption, and Domestic Supply Must Therefore Be Supplemented by Imports from Foreign Countries.

Each of these classes is subdivided into reproducible and non-reproducible raw materials.

No useful purpose will be served by a detailed discussion of the raw materials listed in this classification. Many of

New Zealand produces practically the only supply of Kauri gum and phormium fibre.

The Union of South Africa has the virtual monopoly of diamonds and ostrich feathers.

India has a monopoly of jute, whilst the West African Colonies yield the major portion of the world's supply of palm nuts and palm kernels, and the Eastern Colonies of plantation rubber.

The British Empire produces about 40 to 45 per cent of the world's total supply of wool. If merino wool only is taken, the proportion is much higher. The Empire also produces over 60 per cent of the world's output of gold.

MATERIALS OF WHICH THE EMPIRE'S REQUIREMENTS ARE APPROXIMATELY EQUALLED BY EMPIRE PRODUCTION

The second category embraces many staple foodstuffs and commodities of which the production is widespread both in the Empire and elsewhere. In many cases the position is that whilst the Dominions are self-supporting, the United Kingdom is not. Wheat, meat, butter, wool and cheese are examples of this kind.

ARTICLES MAINLY PRODUCED AND CONTROLLED OUTSIDE THE EMPIRE

It is in this group of articles that the possibility of economic pressure from foreign countries controlling supplies of raw materials requires especially to be provided against, and that Government action is most needed in order to promote economic independence. In our opinion no general remedy applicable to all classes of goods exists; the action needed must vary in character with each article and the precise line to be taken in each case can only be suggested to the Governments interested after careful examination by the best expert authorities.

them will be referred to in subsequent chapters to illustrate different commercial policies. Only a few will be discussed at this place for the purpose of bringing out the principles involved in levying import tariffs on raw materials. General theories do not help very much in tariff making, but there are certain broad principles which help to define the field. This is the purpose which led to this classification.

I. RAW MATERIALS FOR WHICH THE UNITED STATES IS TOTALLY DEPENDENT.

In the first place, then, consideration will be given to raw materials for a supply of which the United States is totally or almost totally dependent on foreign countries. Three important textile fibres are not produced in the United States—sisal, jute and silk. Yucatan dominates the world market in *sisal*, but manila from the Philippines is a substitute limiting the control of the sisal producers. India's position in *jute*, and Japan's in *silk* are almost monopolistic. No satisfactory substitute has been found for jute, but artificial silk is becoming an important competitor with natural silk. *Rubber* is another product of which we must get our entire supply from abroad.

Certain branches of the American *vegetable oil* industry are largely dependent upon foreign sources of raw material. Notable among these is the copra-crushing industry. Our supply of *copra*, the raw material of coconut oil, comes chiefly from the Philippines. None is produced in continental United States. Coconut oil is used principally in the soap industry and to a less extent in oleomargarine and lard-substitute manufactures. The product of domestic crushers comes into competition with imported coconut oil and indirectly with other foreign and domestic vegetable oils and animal fats.

Tin is the only major metal not found in the United States in deposits of sufficient purity and extent to justify a domestic mining industry. Small deposits have been found at widely separated points and attempts have been made to develop them, but up to the present time the domestic output has been absolutely negligible. None of these developments justify any hope that the United States can ever become independent of foreign sources of supply. The countries of largest production in order of their importance are the Malay Peninsula, Bolivia, Dutch East Indies, China and Nigeria. British interests have prohibited the exportation of tin ore⁹ and concentrates from British possessions, and we are dependent upon British territory for much of our supply of refined tin.

There is, as a matter of fact, no economic justification for the smelting of imported ore in Cornwall, where most of the British works are located. Not only is there no good port, but both fuel and raw materials must now be brought from a distance. The location of this business is a survival of the days when the Cornish mines were able to produce a large output. The British smelting interests have attempted to hold control of this industry by the imposition of differential export taxes on tin ore and concentrates in the colonies. Unless it can be proven to the satisfaction of the Government that such ores or concentrates are to be smelted and refined in England or a British possession a prohibitive surtax is levied.

In spite of this limitation of raw material American smelters have recently invaded the field of tin reduction, and it is this branch of the industry in which the United States may become a real factor in production. The domestic industry depends upon Bolivia for its ore supply.

⁹ For further discussion see chapter V.

The United States is practically totally dependent on outside sources for its supply of *platinum*. In the years before the European war 90 per cent of the world's supply came from Russia. Since 1914, at first due to the war and later to the general disorganization, the production of this metal at least for export ceased. As production from the Russian field fell off, the Colombian deposits (controlled by American capital) were developed until they supplied the bulk of the world's needs. These deposits are not as extensive as those in Russia, and the great demand has seriously depleted their reserve.

Three big corporations control the entire world's production of *nickel*. The largest of these is an American company—The International Nickel Company—but its mines are situated in Canada. A French company, *Société Anonyme de Nickel*, has plants in England and France operating on ore from New Caledonia. The only other important producer is the Mond Nickel Company, which sends its Canadian ore (matte) to Wales for refining. The country of largest production is Canada. Her great ore bodies at Sudbury, Ontario, furnish fully 60 per cent of the world's output. New Caledonia, a French colony in the South Pacific, supplies most of the remainder. The deposits in the United States are low grade, scattered, and unimportant as compared with the enormous ore deposits of Canada and New Caledonia. Until recently most of the world's nickel was refined in American plants, but as a result of increasing agitation in Canada for the home refining of the Sudbury matte a refinery was erected at Port Colburn, Ontario, during the war and the American plant has been dismantled. There is also some agitation for protection either in the form of a bounty or an export tax on the ore and matte to foster the industry in

Canada. It is fairly certain that in the future we shall be wholly dependent on foreign sources for our supply of nickel except a sporadic output at one smelter in Missouri and from another in New Jersey, the latter utilizing New Caledonian matte.

Domestic deposits of *antimony* are of both high and low grade, but are widely scattered and of doubtful importance. Previous to the sudden stimulation in 1915 and 1916, antimony mining in the United States was insignificant. In 1918 some half-dozen mines maintained operations, but they contributed less than 2 per cent of the domestic requirements. China has large, easily mined and rich deposits, which, with cheap labor, make that country foremost among the sources of the world supplies. Deposits in other countries, notably Mexico, Canada and Bolivia, are much superior to those of the United States, but China can furnish the antimony supply of the world at costs that are extremely low. It is unlikely that American mines could furnish any large supply except at a very high cost.

The amount of *asbestos* consumed by the United States annually exceeds the combined consumption of all the other countries of the world. For our supply of raw material we are dependent upon Canada, which supplies about 95 per cent of our total annual imports. Known deposits of asbestos in the United States are entirely inadequate to supply our domestic needs, and although efforts are being made by the Government to discover additional areas, it is probable that no very large deposits of this mineral exist in this country. Since the United States is the largest manufacturer of asbestos products in the world, a part of this product finds its way back to Canada. As a result of this, there has been in recent years agitation for the enact-

ment of an export tax or embargo having for its purpose the establishment or transference of this industry to Canada.

Obviously, such products as copra, tin ore, platinum, nickel, antimony and asbestos, of which practically our entire supply comes from foreign countries, present many serious problems (*e.g.*, the problem of military needs), but at least they present no protective import tariff problem. No American producers exist to ask for protection, and American consumers desire to get their raw materials from abroad as cheaply as possible. Revenue needs might lead to the imposition of a duty on these products, but usually they are on the free list.

II. RAW MATERIALS OF WHICH THE UNITED STATES HAS AN ADEQUATE DOMESTIC SUPPLY

In striking contrast with our natural poverty in the raw materials classified under the first main division of the classification is the richness of our position in other raw materials represented by those classified under the second and third divisions. Our dominant position in *cotton* needs no comment in this connection. In our early tariff acts cotton was occasionally dutiable, but with the exception of a duty of 7 cents per pound on *long staple* cotton in the Emergency Act of 1921 (now repealed) cotton has been exempt from duty since shortly after the Civil War.

Canadian competition has resulted in import duties being imposed from time to time on *forest products*, but in recent years a large percentage of the industry has favored free trade, partly on general principle, partly because of American holdings in Canada.

In the case of crude metals and minerals we are absolutely dependent on foreign nations for but few. In

times of peace considerable quantities of certain minerals are imported as a matter of economic convenience and price, but if the occasion arises most of the minerals can be produced within our borders to supply domestic needs.

Our domestic supply of *lead ore* is ample for our domestic needs. Chiefly because of competition from Mexico lead ore has been dutiable. Large quantities of lead, however, are imported in bond from Mexico, smelted and refined in American plants, and the pure metal re-exported.

In respect to *petroleum* and *sulphur* the United States is on an export basis and under such conditions an import duty would not affect the price and would be merely nominal.

Although we import large quantities of *copper* from South America and Mexico, our domestic production is a dominant factor in the world market. Our imports consist of crude metal (containing silver and gold) which is refined in domestic plants and the pure metal exported. Formerly we were dependent upon foreign sources for our supply of *molybdenum*, but the needs of war developed our domestic resources so that we advanced from a state of almost complete dependence to one of considerable overdevelopment. We have the largest *iron* and *coal* reserves in the world. Imports, when they exist, are to supply local or special needs. The Pacific Coast, for example, is supplied in part by the coal of British Columbia. We import considerable quantities of Swedish, Mediterranean, Cuban and South American *iron ore*—in some cases because it is cheap, in other cases because it is free from objectionable impurities, and in still other cases because it contains small amounts of nickel, chromium or manganese. We import from 10 to 20 per cent of our domestic consumption of

bauxite, used in the manufacture of aluminum. Both price and superior quality enter into these importations. We have very large reserves of this raw material. We also import considerable quantities of pure *aluminum* in the form of ingots, sheets and shapes, but this is a matter of convenience or price since plant capacity and ore supplies proved sufficient during the war to satisfy not only our own expanded needs but also a demand for export.

Generalizations concerning import duties on products listed under the second division (*i.e.*, raw materials of which we have an adequate supply and in some cases an exportable surplus) is not practicable except within limits. It would not be true to say that these products present no tariff problems. Producers of some of these products have been most insistent for protection. The very fact that the supply is adequate to domestic needs has been urged as a reason for reserving the home market by duties for the American producer. When the export trade is not an important factor in the trade, tariffs will favor the producer and, if he is strong, he will probably get protection.

When, however, there is a large exportable surplus, and particularly when the American product dominates the world market, tariff duties are merely nominal when they exist, except that without them there might be small local importations. Products like cotton, petroleum and sulphur are naturally on the free list. Prices are fixed by international competition or by monopoly and a tariff would have no effect if levied.

III. RAW MATERIALS OF WHICH THE UNITED STATES HAS AN INADEQUATE SUPPLY

The value of the classification of raw materials into reproducible and non-

reproducible becomes more evident where consideration is given to the import tariff problems in the third division. If the environmental conditions are favorable, the quantity of the reproducible products can be increased by cultivation and breeding. Whether or not they are produced depends on such factors as price and competition with other lines of production (*e.g.*, competition of dairying with sheep husbandry). If, then, a country wishes to encourage the production of these products, it can under certain conditions do so by imposing an import tariff which raises the price. Two very dissimilar cases—tobacco and wool—will be used to amplify the problems presented by products in the third division.

Although the United States occupies an outstanding position as the world's largest producer and exporter of *leaf tobacco*, our manufacturing industries are dependent upon foreign sources for certain particular varieties of leaf required by them. Chief among these varieties are cigar wrapper, Havana filler, and Turkish cigarette tobacco.

Imports supply approximately 30 per cent of the domestic consumption of *cigar wrapper*. Most of the imports originate in the Dutch East Indies, principally in Sumatra. In addition small quantities of Havana wrapper are imported to supply the demands of our clear Havana industry. Since 1910 imports have averaged somewhat over 5,000,000 pounds, while the duty of \$1.85 per pound has been equivalent on the average to over 170 per cent *ad valorem*. Should imports of cigar wrapper be cut off, the cigar industry would be embarrassed because of the difficulty of substitution of domestic for foreign leaf.

Sumatra tobacco is marketed almost entirely in the Netherlands. The

production and distribution is controlled by four large producing companies which have joint interests and which entered into agreements to limit the 1919 and 1920 crops to 150,000 bales as against a normal production of 250,000 bales. The tobacco is sold at public auctions or "inscriptions."

The principal source of imported *cigar filler* is Cuba; imports from that source amounted, in 1921, to 17,000,000 pounds. Havana filler has an important place in the domestic cigar industry, both as the raw material for the clear Havana cigar manufacturers of Florida and also for blending with domestic filler in cheaper and moderate priced cigars. Because of its peculiarly aromatic character, it is especially adapted for this latter use and its importance is not adequately measured by the amount of imports.

The domestic cigarette industry is almost entirely dependent upon imports for its supply of *Turkish tobacco*. In recent years imports have averaged about 28,000,000 pounds. There has been a small production of tobacco from Turkish seed in California which has not amounted to over 1,500,000 pounds in any year and which manufacturers assert is not of a quality to be an acceptable substitute for the imported leaf. By far the largest part of the domestic cigarette production consists of blended brands of cigarettes which require Turkish leaf. Turkish is also required by manufacturers of pure Turkish brands. The large American cigarette companies maintain subsidiary buying companies in the Near East. Exports have been subject to restrictions imposed by the Turkish Government tobacco monopoly or "Régie," and the various governments have imposed export taxes from time to time. Recently the Greek Government has required that for the purchase of tobacco drachma exchange must be

bought from the national bank at a fixed price which was higher than the market price. This requirement indirectly operates as an export tax.

An excellent example of a reproducible raw material of which the United States must import a substantial portion of its annual need is *wool*. The larger portion of the world's wool is raised in semi-arid regions where other forms of agriculture are unprofitable, or in areas distant from the consuming markets where the population is sparse, land relatively low in price, and the more extensive forms of agriculture are the rule. In the more advanced countries sheep have become a supplement to general farming and wool is, to a large extent, a by-product. The annual wool production of the world is estimated at approximately 2,600,000,000 pounds. The greater part of the exportable surplus of the world comes from Australasia, the River Platte region and South Africa. The consuming countries are in the northern hemisphere, and include England, France, Germany, Belgium and the United States.

The United States produces about 300,000,000 pounds of wool. Until very recently this production had remained stationary for three decades. On the other hand, domestic consumption of improved wools has been increasing. Approximately 50 per cent—perhaps a little more—of our domestic consumption of wool is imported wool. Our growing consumption, coupled with the world's shortage of wool and a tariff duty of 31 cents per clean pound, has tended to increase the domestic clip. The tendency is for domestic production to increase under the stimulus of the resulting high prices. Although the United States will remain permanently an importer of a substantial portion of its improved wools, recent conditions have

indicated how the domestic supply of a reproducible raw material can be increased.

The duty on wool furnishes an excellent example of two problems which arise from the imposition of tariff duties on raw materials. The first is the problem of compensatory duties. A duty on a raw material is a burden to the manufacturer who consumes it. If this burden is to be placed upon him, he is entitled to claim a compensatory duty in addition to the protective duty, if any, upon his finished product. Since 1867 the most perplexing problem connected with the wool schedule of the tariff has been the adjustment of the compensatory duties. In the second place the problem of the pyramiding of prices presents itself. A duty on raw material tends to be pyramided in the prices of the finished product, and the consumer ultimately pays a price enhanced beyond the amount of the duty imposed upon the raw material. In some instances this difficulty might be avoided by granting bounties on the production of the raw material, but bounties have not been popular in the United States.

IRREPLACEABLE MINERALS

Antonio sneeringly asked, after Shylock had described Jacob's trickery with his Uncle Laban's flocks: "Is your gold and silver ewes and rams?" And Shylock replied: "I cannot tell; I make it breed as fast." Antonio's remark, reflecting the medieval view of usury, was not sound when applied to the money market, but it is true when applied to the exploitation of non-reproducible raw materials. Minerals are not ewes and rams, and they do not increase. Once taken from the ground and used they are not replaceable by the genius of man. Some, like iron, are in part recovered from scrap, but

others, like tungsten, are totally lost.¹⁰ Before analyzing this problem further several minerals will be discussed of which the United States does not have an adequate supply.

For a decade before the European war the United States produced less than 1 per cent of its total *manganese ore* supplies.¹⁰ The cutting off of foreign supplies forced an expansion of domestic production from about 3,000 tons in 1913-1914 to over 300,000 tons in 1918, or almost 50 per cent of our consumption. Although not impossible, it would be only under the strongest pressure that domestic producers could supply the normal requirements for manganese in the United States. Our reserves are limited, and production at this rate would exhaust the American resources in a few years. Furthermore, on account of the lower average grade of American ore, greater dependence on domestic supplies would involve changes in American steel work practice.

The *chromite* problem differs from that of manganese in degree only, the industries consuming a tonnage of approximately one-eighth that of manganese. Our chromite resources are insignificant in comparison with those of Rhodesia, New Caledonia, Asia Minor, Russia and Brazil, and they are scattered and generally of undesirable quality. The deposits of high-grade ore in the above-mentioned countries run into millions of tons, while the largest body of chromite ore in the United States is estimated to contain less than 18,000 tons. With foreign chromite entirely excluded it is estimated by the United States Geological Survey that the known resources of the United States would be depleted in five years or less. The question of

¹⁰ See page 189. *The Practical Need for International Conservation of Minerals*. Mr. C. E. Juhlén, Bureau of Mines.

quality of domestic supplies is even more important than in the case of manganese. The principal chromite producing countries are New Caledonia, Rhodesia and Russia. New Caledonia and South Africa in normal times supply over 65 per cent of the world's production.

The *vanadium* production of the world is practically monopolized by one American company, the Vanadium Corporation of America. The largest known ore deposit in the world is located in Peru. The only other deposits that have supplied any considerable commercial output are located in Colorado. The deposits in both these localities are owned and operated by the above company.

The United States is now the largest producer of *fluor spar* in the world, though it meets with competition from Great Britain and Germany. Most of the domestic material comes from Illinois and Kentucky. The principal foreign production is as a joint product of lead mining in England. Germany has also an unknown exportable surplus. The situation in the United States is none too encouraging. Domestic resources seem to be in danger of depletion in a decade.

Eighty per cent of the world's production of *tungsten* comes from the United States, China, Burma and Bolivia. The United States is the largest consumer of *tungsten*. Although it ranks as the largest single producer, the domestic supply must be supplemented by importation. *Tungsten* deposits are characteristically erratic. Three stages can be distinguished in their exploitation: (1) A stage when the ore can be picked up on the surface or gouged from easily-mined deposits; (2) a transition stage in which the easily- and cheaply-mined material has been largely exhausted and underground mining is

begun; and (3) the stage of production from developed underground mines. The domestic deposits are typically low grade and production is in the second stage. In the other countries, notably Bolivia, Burma and China, there are large deposits in the primary stage. Domestic ores are usually less contaminated with harmful impurities than the foreign ores. Before the war Germany was not only the clearing house for most of the *tungsten* ore mined in the world, but a large part of the *tungsten* powder and ferro-alloy produced was manufactured in that country and furnished to steel makers throughout the world. This situation was abruptly changed by the European war, and both England and the United States now possess smelting facilities sufficient for their own needs.

Quality rather than price and reserve is the determining factor in the *magnesite* situation. Austria and Greece have enormous deposits of excellent material. The United States developed during the war deposits ample for its own needs and if the occasion should arise, it is reasonably certain that they could be materially increased. The trade distinguishes two kinds of *magnesite*—the dead burned variety, which is used in the metallurgical industries and in the manufacture of refractory brick, and the caustic calcined variety, which is used in the manufacture of oxychloride cements for the building industry. The Austrian *magnesite* has just the right proportion of iron in it to give the desired bonding action for the brick, while the miners in Washington State are obliged to add iron to the *magnesite*. The domestic industry, however, should soon adjust itself to meet competition on the quality basis. The chief drawback in the utilization of domestic deposits is geographical. They are situated on the Pacific Coast,

whereas the bulk of this heavy material is consumed in the East.

India, the United States and Canada (in the order named) are the largest producers of commercial *mica* in the world. Other countries contribute small quantities from time to time, but they are not controlling factors. The Muscovite or white mica deposits of India constitute the chief sources of the world's supply. Since these deposits are rich and extensive and supply the best qualities for all general purposes, Indian mica dominates the market in the United States and other countries.

Phlogopite or *amber mica* is principally produced in Canada. In fact, until recent years the entire world supply of amber mica was furnished by Canada. This mica, however, is used principally for special purposes in the electrical industry, and while indispensable does not compete actively with the domestic mica.

Quicksilver is an essential war mineral, for it is an indispensable ingredient in the manufacture of all detonating devices for high explosives. No satisfactory substitute has yet been found. Domestic ore deposits are low grade and erratic. The average metal content of the ore mined in the United States is less than one half of 1 per cent. Extensive supplies of ore are found in Spain where the metal content averages 8 per cent and over. Italy has enormous reserves that are two and three times richer than the American deposits, and can be mined more cheaply. Without tariff protection the quicksilver industry could not exist in the United States.

Graphite as used in the industries may be divided into three varieties: the crystalline, amorphous and artificial. Interest centers chiefly in the material capable of being made into crucibles—the crystalline variety.

Quantitatively the crystalline graphite resources of the United States are distinctly inferior to those of the two main foreign sources—Ceylon and Madagascar. The domestic ore, as mined, averages about 5 per cent graphitic content, whereas the foreign carries 50 per cent and over. The Ceylon graphite, especially, has had some technical superiority and much popular reputation for the making of crucibles. Recent experiments by the Bureau of Mines have shown, however, that the domestic material makes quite as good crucibles as the foreign variety.

The *incandescent gas mantle* gives the cheapest illumination wherever natural or manufactured gas is available. The domestic manufacture of such mantles is well established and a considerable export business has been developed. The fundamental raw material is a mineral known as *monazite sand*, which contains the phosphates of cerium, thorium and lanthanum. From the time of the invention of the incandescent gas mantle up to about 1909 the only known deposit of monazite was in Brazil and the industry was dominated by Germany. In 1909 very rich and extensive deposits of monazite sand were discovered along the seacoast of Travancore in southern India. Notwithstanding a duty of 4 cents per pound, the Carolina mines in the United States have been unable to compete with the Brazilian and Indian product.

Abrasive materials may be divided into two classes: Natural abrasives and artificial abrasives. The most marked tendency of the abrasive industry has been the steady decline of natural abrasives and the increasing prominence of the artificial abrasives. This is due to the higher efficiency, greater uniformity, and dependability of the artificial abrasives. There has been a steady growth in their use until today less than one third of the crude abra-

sives consumed are natural products. Prior to the invention of artificial abrasives, the United States was largely dependent upon Turkey, Italy and Greece for a large part of her natural abrasives. At the present time, we are dependent upon Canada for the most important abrasive materials—the crude artificial abrasives. The two principal artificial abrasives were the invention of Americans and their development has been carried out by American companies. The plants of these two firms were originally located at Niagara Falls, New York, but they have been forced to erect their new plants in Canada in order to secure sufficient power (water) at a reasonable cost. About 65 per cent of the crude artificial abrasives consumed in the United States are now produced in Canada and then imported into this country for final manufacture into finished products.

Certain of the minerals thus briefly discussed—manganese, chromite, tungsten—present certain common problems which were first brought to the nation's attention by the war experience. In the pre-war period these minerals in most cases were imported from foreign countries. High prices and the war demand stimulated American production and in many cases we discovered that we were self-sufficient if we were willing to pay the price. On the one hand, is the question of industrial and military self-sufficiency; on the other, the value to our consumers of less expensive supplies from foreign countries which have exportable surpluses.

TARIFF DUTIES ON IRREPLACEABLE MINERALS

The decision whether import duties should be imposed on the importation of these and similar non-reproducible minerals must be reached after con-

sidering a number of factors. In the first place, there is the producer's interest. Persons owning deposits of these minerals claim the right to be encouraged in their exploitation. They present the usual arguments for the protection of an infant industry, and argue that if other interests are to be protected, they, too, are entitled to protection. It is also true that tariff duties will encourage prospecting for new sources of supply, and thereby the country may ultimately become a more important producer of a given raw material than appears possible at the present time.

In the second place the consumer's interest should be considered. In the case of many of these minerals a supply can be obtained from abroad much more cheaply and of better quality than from domestic sources. These metals are in many instances vital in the manufacturing processes of some of our basic industries. In the production of high-speed steel, for example, the manufacturer must have a substantial supply of tungsten, chromium and manganese. A duty is imposed upon these products in the Tariff Act of 1922. It, therefore, became necessary to grant to the manufacturer of high-speed steel compensatory duties. These duties serve to protect the manufacturer in the domestic market, but they handicap him in the international market where he desires to compete with foreign manufacturers who obtain their raw material in a free international market. Against the advantage to the producer of such metals, therefore, must be weighed the disadvantage to our manufacturing industries which are prevented by the tariff from obtaining high-grade raw materials at competitive world prices.

In the third place these metals raise the question of national conservation. The deposits in the United States of

manganese, chromite, tungsten and quicksilver are relatively limited in quantity and of low grade in comparison with foreign sources of supply. If we continue to exploit our domestic sources, the result will not only be higher and higher costs, but a possible exhaustion of the domestic sources of supply. The national question is: When should a nation utilize a limited supply of an exhaustible resource? Should we permit the exhaustion of a non-reproducible resource for ordinary industrial uses, or should we in peace time use readily available and cheap foreign sources of supply and reserve our limited domestic supplies for use in times of emergency and war?

IMPORT TARIFFS REFLECT NATIONAL NEEDS

The discussion of a large number of cases in this chapter has had a purpose

perhaps not apparent. It is to show that import tariffs are determined not according to some general theory of free trade or protection, but by the conditions of each particular case in accordance with the national need. In some cases, as where the domestic production dominates in international trade, the tariff duty necessarily is nominal and when imposed is a mere political gesture. In other cases, the national need must govern. The interests of the consumer and the producer must be considered, but neither should control as against the national need of an essential material in the development of a diversified industrial life or in a program of self-sufficiency in time of war.¹¹

¹¹ See page 234. *The Movement of Raw Materials and Foodstuffs in International Commerce and Its Relation to Shipping.* Mr. R. T. Merrill, United States Shipping Board.

Appendix

RAW MATERIALS AND THE TARIFF DUTIES IMPOSED BY THE UNITED STATES

The paragraphs and rates of duties are those of the United States Tariff Act of 1922

I. PRACTICAL TOTAL DEPENDENCY OF THE UNITED STATES ON FOREIGN COUNTRIES

A. Reproducible Raw Materials.

1. *Shellac*—Free, par. 1604. Commercial production of crude shellac restricted to India, Siam and Indo-China. Used as binder in buttons, phonograph records, etc., and as stiffening and water-proofing agent, and in varnish.
2. *Quinine*—Free, par. 1518. Made from cinchona bark, which is produced chiefly in East Indies. Quinine sulphate comes almost wholly from Java—99 per cent.
3. *Natural Camphor*—1¢ per pound, par. 52. Monopoly of Japan.

Synthetic camphor can now be produced in commercial quantities if the price is high enough.

4. *Copra*—Free, par. 1626. The dried broken kernel of the coconut from which coconut oil is expressed. Practically all grown in Oceania.
5. *Jute*—Free, par. 1582. Produced almost exclusively in British India—cheapest, and next to cotton most extensively used commercial fiber. Because of abundance and cheapness is world's leading wrapping and sacking material.
6. *Sisal*—Free, par. 1582. Name for a number of tropical fibers used for twine and cordage. Approxi-

mately 80 per cent of the world's binder twine is from Yucatan henequen and about 90 per cent of the Yucatan crop is shipped to the United States.

7. *Manila*—Free, par. 1582. World's leading raw material for rope—from the leaf stalks of a plantain tree native to Philippines, which is practically the only source.
8. *Silk*—Free, par. 1664. Japan's position dominant. Some imports from China and Southern Europe. No American production. Artificial silk becoming an important competitor.
9. *Flax*—Not hackled, 1¢ per pound, hackled, 2¢ per pound, par. 1001. Before the war Russia supplied about 85 per cent of the world's flax. Remainder from Austria, France, Ireland and Belgium. War shortage stimulated production in Canada and Japan. In 1921-22 Poland led the world in the production of flax fiber.
10. *Rubber*—Free, par. 1594. In 1918, 90 per cent of crude rubber production was from Eastern plantations. In recent years imports have been chiefly from British Malaya and Dutch East Indies.

B. Non-Reproducible Raw Materials.

1. *Quebracho*—Free, par. 1568. A very hard wood produced chiefly in the River Plate region and used for making tanning extracts. Natural tanning materials of American origin and synthetic tanning materials provide in most cases an adequate substitute.
2. *Potash*—Crude salts for fertilizer use—Free, par. 1645. Chief production in Germany and Alsace, where geological advantages are favorable. Some produced in the United States as by-products, and high prices would call out other supplies as it did during the war.
3. *Sodium Nitrate*—Free, par. 1667. Natural deposits of commercial importance are in Chile. Used chiefly for fertilizer.
4. *Tin Ore*—Ore free with proviso,¹² par. 1684. Mined in Federated Malay States, in Nigeria, and in Bolivia. Practically no production in the United States.
5. *Platinum and Allied Metals*—Free, pars. 1596, 1634, 1644. Ores of platinum mined in the United States are insignificant. In this country it is produced as a residue in refining gold and silver, copper and nickel. Foreign platinum now largely imported from Colombia, but Russia is chief producer in normal times.
6. *Nickel Ore*—Free, par. 1634. Canada is the largest producer—over 50 per cent of the world's output.
7. *Antimony Ore*—Free, par. 1508. Used chiefly as alloy in type metal, Britannia metal and babbitt metal. Domestic deposits widely scattered and unimportant. China usually furnishes over 60 per cent of the world's supply.
8. *Cryolite*—Free, par. 1561. Entire world's supply comes from ore deposit in Greenland. Used principally in aluminum industry but also in opalescent glass and enamels.
9. *Asbestos*—Crude—Free, par. 1515. Fundamental characteristic is fibrous character, similar to vegetable fibers, but resists action of heat and chemicals. Canada produces over 85 per cent of the world's supply, but the largest manufacturer is the United States.
10. *Monazite*—Free, par. 1621. Used principally as a raw material in gas mantles. Because of expense of mining, American producers cannot compete with imports from Brazil, British India and Canada.

¹² Four cents per pound, when the President is satisfied that the mines of the United States are producing 1,500 tons per year.

II. ADEQUATE DOMESTIC SUPPLY AND IN SOME CASES AN EXPORTABLE SURPLUS

A. Reproducible Raw Materials.

1. *Cotton*—Free, par. 1560. Large exportable surplus. Ranks after corn and hay as most valuable crop grown in this country. American production of long staple cotton small; such cotton mostly from Egypt. Imports are supplementary rather than competitive.
2. *Cottonseed Oil*—3¢ per pound, par. 55. The vegetable oil most widely used in this country. American exports large. Production depends on cotton crop and not on demand.

B. Non-Reproducible Raw Materials.

1. *Forest Products*¹²—Free, par. 1700. Proviso concerning countries placing duty on similar articles exported from the United States.
2. *Earths*—\$1 to \$7.50 per ton, par. 207. Large domestic deposits undeveloped because cheap supplies of high-grade foreign clays are available. About 56 per cent of china clay used is from Eng-

¹² Greeley, W. B., et al: *Timber: Mine or Crop?* U. S. Department of Agriculture Year Book, 1922: "... The timber to supply our demands has been mined from the forest much as coal has been mined from the ground.

"Largely through timber mining the original stand has been reduced from more than 5,200 billion board feet to approximately 1,600 billion feet of virgin timber and 600 billion feet additional in culled and second-growth stands. Depletion and higher prices have reduced the drain on our forests, but the amount taken is still four times replacement by growth.

"Timber mining is, therefore, responsible for a great reduction in our timber supplies. With accompanying forest fires, it is also responsible in part for a great reduction in the area of our forest lands. The original forest of 822 million acres has been reduced to 138 million acres of virgin forest, 250 million acres additional of comparatively inferior culled and second growth, and 81 million acres of unproductive land, a total of slightly less than 470 million acres" (p. 84).

land. Some comes by way of Canada. Kaolin. The highly plastic clays for lead pencils, crucibles, and glass pots, not displaced by domestic supply.

3. *Bismuth*—7½ per cent, par. 377. Used principally in medicinal preparations and low-melting point alloys. The United States produces about 75 per cent of what we use. Although Bolivia produces most of the world's bismuth, our imports are chiefly from Great Britain where ores from Australia are refined.
4. *Lead*—1½¢ per pound on lead content, par. 392. The United States is the largest producer and consumer of lead, and since 1875 has been practically independent of foreign supplies. Most of the ore imported is eventually re-exported, as we carry on a large smelting and refining business in bond. Most of the foreign ore refined here is from Mexico.
5. *Cadmium*—15¢ per pound, par. 378. A heavy metal somewhat resembling tin. It is readily fusible. Is used as an alloy in dentistry and in glass coloring; is a by-product of the zinc smelting industry. Prior to 1907 Germany was the sole producer. The domestic output (127,164 pounds in 1918) could be increased if there was sufficient demand.
6. *Phosphates*—Free, par. 1640. [Used principally as fertilizer. The United States produces more than any other country. Practically no imports. Morocco and Nauru also producers.
7. *Metallic Magnesium* — 40¢ per pound, par 375. Lightest known metal that withstands atmospheric corrosion at normal temperature. The most important alloys of magnesium are those containing aluminum used in aeroplane and automobile construction. As a powder the metal is used in flashlight powder, pyrotechnical mixtures, etc. The pro-

duction of metallic magnesium in the United States is a new and growing industry. Before the war the entire limited supply came from Germany.

8. *Molybdenum*—35¢ per pound on metal contents, par. 302. Flaky mineral resembling graphite in appearance. Used in manufacture of high speed and stainless steel. Imports are negligible since the United States practically controls the market.
9. *Alumina* (Bauxite)—\$1 per ton, par. 207. Bauxite is the chief ore of aluminum; contains at least 52 per cent of alumina. Over 90 per cent of the domestic production comes from Arkansas. The only other great commercial deposits are in southern France and Jugoslavia. Undeveloped deposits in large quantities occur in tropical countries.
10. *Zinc*—Containing less than 10 per cent zinc, free; more than 10 per cent $\frac{1}{2}$ ¢ to $1\frac{1}{2}$ ¢ per pound on zinc contents, par. 394. The United States is the largest producer of zinc ore. The Missouri, Kansas, Oklahoma regions are the largest producing regions in the world. The greater part of the ore imports (largely from Mexico) are for refining, and are largely re-exported with the benefit of drawback.
11. *Silver*—Free, par. 1634. The producing states of greatest importance are Montana, Utah, Idaho and Nevada. Domestic output in 1920 was about 56,600,000 fine ounces. Total foreign output for 1918 was about 130,000,000 fine ounces.
12. *Sulphur*—Free, par. 1677. Crude sulphur as mined in the United States is often 99 per cent pure. Used chiefly in the production of sulphuric acid and of sulphur dioxide. The leading producers are the United States (Texas and Louisiana), Italy and Japan.

Production in this country is increasing yearly, and imports are negligible.

13. *Salt*—Bulk 7¢ per 100 pounds; packages 11¢ per 100 pounds, par. 83. Domestic production is steadily increasing and since 1914 has supplied over 99 per cent of domestic consumption. About 50 per cent of the salt is used as brine in the manufacture of chemicals. Michigan and New York produced over one-half the output. Imports are negligible.
14. *Copper*—Free, par. 1556. The United States produces more than one-half the world's copper. In 1918 the principal producing states were Arizona, Montana, Michigan and Utah.
15. *Petroleum*—Free, par. 1633. The United States is the largest producer and supplies over 65 per cent of the world's demand. Mexico is the second largest producer. Over 95 per cent of our imports are from Mexico.
16. *Coal*—Free, par. 1548. In 1913 the approximate total production for the world was about 1,478,000,000 short tons; the United States, 570,000,000 short tons; Great Britain, 322,000,000 short tons; Germany, 306,000,000 short tons; Austria-Hungary, 60,000,000 short tons; France, 45,000,000 short tons; Russia, 37,000,000 short tons.
17. *Iron Ore*—Free, par. 1597. The United States is the greatest producer of iron ore (40 per cent of estimated world total in 1913). Since the war France ranks next to the United States. A relatively small quantity is imported. About half of the imported ore is Cuban, valuable on account of its nickel and chromium. Most of the remainder comes from Spain and Sweden. The latter ores are valuable on account of the low phosphorous content and general purity.

III. NOT PRODUCED IN SUFFICIENT AMOUNTS IN THE UNITED STATES TO SATISFY HOME CONSUMPTION AND DOMESTIC SUPPLY MUST THEREFORE BE SUPPLEMENTED BY IMPORTS FROM FOREIGN COUNTRIES

A. Reproducible Raw Materials.

1. *Citrate of Lime*—7¢ per pound, par. 49. By-product of the California lemon industry. Chief competition from Sicily. Imports larger than domestic production.

2. *Hides and Skins*—Free, pars. 1589 and 1666. Cattle hides. Domestic production averages about 600,000,000 pounds annually. Imports largely from Argentina and other South American countries—about one-half the quantity produced. Production of other skins is in much smaller ratio to imports, these coming chiefly from India, South America, France and Canada. Russia was an important source before the war.

3. *Certain Vegetable Oils*—1½¢ per pound to 7½¢ per pound, pars. 54 and 55.

Coconut oil—2¢ per pound. Domestic production is from imported copra. Imports of the oil greater than domestic production; largely from the Philippines, East Indies and Cuba. Used largely in soap and oleomargarine.

Linseed oil—3½¢ per pound. Domestic production from flaxseed. Largely imported from Argentina and Canada.

Olive oil—6½¢ per pound in bulk and 7½¢ per pound in containers less than 40 pounds. Production is about 2 per cent of consumption. Imports are chiefly from Spain and Italy.

Peanut oil—4¢ per pound. Domestic production small. Imports largely from France before the war (i.e. from West African peanuts), but are now chiefly from Japan, China, Hongkong and the Philippines.

4. *Tobacco*—Unstemmed cigar and cigarette filler, 35¢ per pound, unstemmed cigar wrapper, \$2.10 per pound, pars. 601 and 603. Although the United States is the greatest producing country, large quantities of high-grade leaf tobacco are imported, chiefly cigar tobacco from Cuba and the Dutch East Indies, and cigarette tobacco from Turkey and Greece.

5. *Hemp*—Not hackled, 1¢ per pound, hackled 2¢ per pound, par. 1001. Used in making twines, cordage and coarse coverings. The United States is a relatively small producer. Before the war Russia produced about two thirds of the world's hemp.

6. *Wool*—Improved wools, 31¢ per pound of clean content; native or carpet wools, free, pars. 1101 and 1102. Domestic production of improved wools about 50 per cent of consumption; of carpet wool negligible.

B. Non-Reproducible Raw Materials.

1. *Arsenic*—Free, par. 1513 (white arsenic). White arsenic obtained in the United States chiefly as a by-product of smelting copper and lead ores. Chiefly used in manufacture of insecticides, at present; calcium arsenate for fighting the boll weevil is the most important. Recent imports are from Canada, Belgium and Mexico.

2. *Manganese*—1¢ per pound, on manganese content, par. 302. Raw material for use in making steel. Domestic resources limited. Imports are largely from Brazil and British India. Caucasus supplied larger quantities before the war.

3. *Chromite*—Free, par. 1547. About 90 per cent of the domestic production is in California, but domestic resources are insignificant. Imports are largely from Portuguese Africa, French Oceania and Canada. Used chiefly in manufacture of ferro-chrome for use in

- making armor-plates and bullet-proof steel and high-speed steel.
4. *Tungsten*—45¢ per pound on tungsten content, par. 302. Domestic production from ores in California and Colorado is small. Used in hardening steel. Imports from China and Bolivia.
 5. *Magnesite*— $1\frac{5}{8}$ ¢ per pound, par. 204. Used in refractories for steel manufacture and in cement for floors. Industry developed in Washington and California during the war. Imports are chiefly from Austria, British India and Greece.
 6. *Abrasives*—Free, par. 1570. Natural abrasives being superseded by artificial abrasives produced chiefly in Canada.
 7. *Barytes*—\$4 per ton, par. 69. Used in manufacture of lithopone for paint and as a filler for heavy boards such as bristol board. Before the war about 40 per cent of our consumption was imported from Germany. The domestic output has increased.
 8. *Vanadium*—Free, par. 1619. Used for a ferro-alloy. The world's output is practically under American control. Deposits in Peru, Colorado and Utah.
 9. *Fluor spar*—\$5.60 per ton, par. 207. Used in metallurgical work, in

manufacture of opalescent glass and enamel ware. Domestic supplies, largely in Illinois and Kentucky, are limited—imports from England competing along the Atlantic Coast.

10. *Mica*—4¢ per pound or 25 per cent according to value, par. 208. Important as an insulator. Essential in manufacture of electrical machinery. Principal domestic producing states are North Carolina and New Hampshire. Imports are from India and Canada. India, the United States and Canada now produce 95 per cent of the world's output.
11. *Quicksilver*—25¢ per pound, par. 386. Practically all domestic production is in Texas and California. War prices led to increased production. Spain, Italy and Austria have been the chief producing foreign countries.
12. *Natural Graphite*—10 per cent, 20 per cent or $1\frac{1}{2}$ ¢ per pound, par. 213. Crucible makers have insisted on having Ceylon graphite, although Montana and Alabama produce an acceptable grade. Quantity available may be sufficient for many years. Chief sources of import are British East India, Madagascar and Korea.

CHAPTER III

EXPORT TAXES ON RAW MATERIALS

Export taxes are more frequently associated with raw materials than are import taxes. In former centuries, they were common in the fiscal systems of European countries. Export duties were levied by England until the Peel reforms of 1842. They arose from the general medieval practice of the sovereign taxing both outgoing and incoming commerce. In addition to the revenue motive under the mercantilist system the industrial motive appeared. For instance, England levied an export duty

on raw wool to keep it at home and thereby encourage wool manufacture.

The levying of export taxes by either the Federal or State Governments is prohibited by the Constitution of the United States. The provisions are:¹⁴

¹⁴ Export taxes are prohibited not only in continental United States, but also in Alaska, Hawaii, Philippines and Porto Rico. A few, however, exist in the Virgin Islands. The only export tax specifically authorized by the United States Congress is an \$8 per short ton tax on sugar exported from the Virgin Islands. It applies to all sugar regardless of destination.

No tax or duty shall be laid on articles exported from any state, and

No State shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts, laid by any State on imports or exports, shall be for the use of the Treasury of the United States; and all such laws shall be subject to the revision and control of Congress.

At the time the Constitution was being considered, Virginia levied an export duty on tobacco for revenue purposes. The southern delegates at the Constitutional Convention in general, however, favored the idea that the Federal Constitution should prohibit export taxes. The opinion was general that such taxation would fall on the planter and limit his development. But some of the delegates favored granting to the Federal Government the power to impose export taxes. The following comments are from James Madison's journal:¹⁸

Mr. Madison: First, the power of laying taxes on exports is proper in itself; and as the States cannot with propriety exercise it separately, it ought to be vested in them collectively. Secondly, it might with particular advantage be exercised with regard to articles in which America was not rivalled in foreign markets, as tobacco, etc. The contract between the French Farmers-General and Mr. Morris, stipulating that, if taxes should be laid in America on the export of tobacco, they should be paid by the Farmers, shewed that it was understood by them, that the price would be thereby raised in America, and consequently the taxes be paid by the European consumer. Thirdly, it would be unjust to the States whose produce was exported by their neighbours to leave it subject to be taxed by the latter. This was a grievance which had already filled New Hampshire, Connecticut, New

Jersey, Delaware and North Carolina with loud complaints, as it related to imports, and they would be equally authorized by taxes by the States on exports. Fourthly, the Southern States, being most in danger and most needing naval protection, could the less complain, if the burthen should be somewhat heaviest on them. And finally, we are not providing for the present moment only; and time will equalize the situation of the States in this matter.

Mr. Gouverneur Morris: However the Legislative power may be formed, it will, if disposed, be able to ruin the country. He considered the taxing of exports to be in many cases highly politic. Virginia has found her account in taxing tobacco. All countries having peculiar articles tax the exportation of them—as France her wines and brandies. A tax here on lumber would fall on the West Indies and punish their restrictions on our trade. The same is true of live stock, and in some degree of flour. In case of a dearth in the West Indies, we may extort what we please. Taxes on exports are a necessary source of revenue. For a long time the people of America will not have money to pay direct taxes. Seize and sell their effects, and you push them into revolts.

Mr. Madison: As we ought to be governed by national and permanent views, it is a sufficient argument for giving the power over exports that a tax, though it may not be expedient at present, may be so hereafter. A proper regulation of exports may, and probably will, be necessary hereafter and for the same purposes as the regulation of imports, *viz.*, for revenue, domestic manufactures, and procuring equitable regulations from other nations. . . . The regulation of trade between State and State cannot effect more than indirectly to hinder a State from taxing its own exports, by authorizing its citizens to carry their commodities freely into a neighbouring State, which might decline taxing exports, in order to draw into its channel the trade of its neighbours.

EXAMPLES OF EXPORT TAXES

Outside of the United States and the industrial countries of Europe, export

¹⁸Madison, James: Journal of the Debates in the Constitutional Convention, pp. 539, 540 and 574.

taxes are at the present time a common feature of fiscal systems. In fact, most of the exportable products of the world outside of the leading industrial nations bear export taxes largely for revenue. The variety of products of most of these countries is limited and therefore, although the list of export taxes may be short, the rates probably affect the great volume of production. Where such monoculture prevails, export taxes are a justifiable substitute for land or income taxes and commend themselves because they are easy to collect. A plantation not yet in bearing pays no tax and, normally, the larger the crop, the greater the tax; hence, it is imposed in accordance with

ability to pay. The producer must find a market abroad and unless he has a monopoly in the world market any export tax levied on his product is paid by him. Under such conditions the absence of export taxes is the exception. Some products of European plantations are exempt. In some countries export duties are not imposed on closely competitive products. In other cases, colonial governments have been prosperous enough to give them up.

Some idea of the nature of export taxes will be obtained from these examples (they are given at some length because the American reader is less familiar with export schedules than he is with import schedules):

Spain

Cork, in sheets or slabs, per ton gross	25 pesos*
Cork waste, shavings and dust, per ton gross	5 pesos*

Portugal

	<i>Per 15 Kilogs.</i>	
	<i>Es.</i>	<i>Cl.</i>
Cork, in strips, calibre of 13 to 17 lines, not suitable for the manufacture of sheets and fragments of cork of first and fourth qualities of the same calibre and which have an area of less than 500 sq. cm.	0	15
Cork manufactured into squares	0	10
Cork sheets	0	03

British India† (jute, other than Bimlipatam jute)

	<i>Rs.</i>	<i>a.</i>	<i>p.</i>	<i>Rs.</i>	<i>a.</i>
1. Raw jute:					
(1) Cuttings, bale of 400 pounds				1	4
(2) All other descriptions, bale of 400 pounds				4	8
2. Jute manufactures, when not in actual use as coverings, receptacles or bindings for other goods:					
(1) Sacking (cloth, bags, twist, yarn, rope and twine), ton of 2,240 pounds				20	0
(2) Hessians and all other descriptions of jute manufactures not otherwise specified, ton of 2,240 pounds				32	0
(Rice)					
3. Rice, husked or unhusked, including rice flour, but excluding rice bran and rice dust, which are free, Indian maund of 82½ pounds avoirdupois weight				0	3
(Tea)					
4. Tea, 100 pounds				1	8

* Normal value of peseta: \$0.193. When the export duties are paid in silver or notes of the bank of Spain, a gold surcharge is added.

† Kelly's Customs Tariffs of the World (1922), p. 22.

*Ceylon**

		Rup.	c.
Arrack (of strength of proof by Sykes' hydrometer, and greater or lesser strength in proportion).....	proof gall.	1	25
Cacao.....	100 pounds	1	50
Cardamoms.....	" "	7	50
Chanks, live or dead.....	thousand	2	00
Coconuts.....	"	2	00
Desiccated coconut.....	cwt.	0	70
Coconut oil.....	"	0	75
Copra.....	"	0	40
Elephants (not tuskers), royalty on.....	each	200	0
Elephants (tuskers), royalty on.....	"	300	0
(No elephants may be shipped for export without the production of a permit for their removal from the districts in which they have been captured.)			
Horns of spotted deer and sambur (excluding cut horns)...	cwt.	14	0
Plumbago, royalty on.....	ad val.		3%
Rubber.....	100 pounds	7	50
Tea.....	" "	1	50

Tanganyika Territory† (formerly German East Africa)

Ivory.....	ad val.	30%
Gum copal.....	" "	6%
Rubber (other than plantation rubber).....	" "	4%
Borities.....	" "	10%
Hides and skins (other than sportsmen's trophies).....	" "	10%
Rhinoceros horn and hippopotamus teeth (other than sportsmen's trophies).....	" "	10%
Tortoise shell.....	" "	10%
Chillies.....	" "	10%
Ebony and other fine woods, as specified from time to time.....	" "	5%

Belgian Congo‡

Subject to the provisions hereinafter appearing in regard to ivory, all goods and products exported from the Belgian Congo are liable to a duty of 3 per cent on their value at the time of going out of the territory.

	Rates of Duty	
	Per 100 Kilogs. §	
	Fr.	c.
Ivory: pieces ("Pilons").....	200	00
" tusks weighing less than 6 kilogs. ||.....	320	00
" tusks weighing more than 6 kilogs.....	420	00

The following duties are established on rubber, except plantation rubber, collected in the territory of the Colony: a tax of 0.75 fr. per kilog. of rubber produced from trees or lianes; a tax of 0.50 fr. per kilog. of rubber called *des herbes*. The tax is levied at the same time as

* Kelly's Customs Tariffs of the World (1922), p. 25.

† *Op. cit.*, p. 224.

‡ Kelly's Customs Tariffs of the World (1922), p. 272.

§ For quantities inferior to 100 kilograms the duties shall be collected in proportion to the above rates.

|| The exportation, trade or detention of elephants' tusks weighing less than two kilograms are prohibited.

the export duties. It is payable by the exporter according to the weight of the product ascertained on exportation.

*French Indo-China**

		<i>Duties</i>	
		<i>Frs.</i>	<i>c.</i>
II. Silk, raw and unravelled	per 100 kilogs.	100	00
Floss silk, cocoons, flock and waste silk	" " "	15	00
Swallows' nests	" " "	600	00
VI. Paddy† and rice, cargo, containing more than 33 per cent of paddy	" " "	gr.	7 60
Rice‡ cargo, containing less than 33 per cent of paddy	" " "	gr.	4 20
Rice‡ white	" " "	3	20
Flour‡ and meal	" " "	0	30

Uruguay‡

		<i>Duties</i>	
		<i>Peso</i>	<i>c.</i>
Wool of all kinds	100 kilogs.	1	30
Skins with the wool	"	0	80
Bristles and horsehair	"	1	70
Grease and tallow	"	0	50
Neat's foot and cabaline oils	"	0	50
Jerked beef	"	0	40
Meat and tongues, preserved	"	1	00
Claws	"	0	25
Guano	1,000 kilogs.	0	60
Hides, ox, salted	each	0	25
" " dried	"	0	12
" horse, salted	"	0	12
" " dried	"	0	06
" calf and stillborn calves, dried|| . . . . .	100 kilogs.	1	00
" phoca	each	0	16
Horns	thousand	2	50
Extract of beef	kilogs.	0	10
Ashes and bones	1,000 kilogs.	0	60

Ad Valorem Duties

		<i>Valuation</i>		<i>Duty</i>
		<i>Peso</i>	<i>c.</i>	<i>Per Cent</i>
Oxen	each	9	00	8
Steers	"	9	00	8
Cows	"	6	00	8
Calves and heifers	"	3	00	8
Sheep and lambs	"	0	50	8
Mules	"	8	00	8
Horses	"	7	00	8
Mares and stallions (<i>potros</i>)	"	3	00	8
Foals and fillies	"	3	00	8
Goats	"	2	00	8
Pigs	"	3	00	8

* *Op. cit.*, p. 484.

† In addition to these export duties, a local tax (*impôt foncier*) must be paid.

‡ The exportation of rice from Annam to any other destination than the territories of Indo-China is prohibited (Decree of 28th August, 1902).

§ *Op. cit.*, p. 1421.

|| Ox hides weighing not more than 6.43 kilogs. each shall be considered as calf hides. (Circular of the Direction General of Customs, dated August 7, 1894.)

Stone in the rough and unwrought.....	1,000 kilogs.	1	00	8
Sand.....	"	1	00	8

Note.—Live cattle, exported through seaports to regions situated beyond the capes (*fuera de cabos*), shall be exempt from duty; other national products, fruits and articles manufactured in the country, shall be exempt from export duty.

MOTIVES FOR EXPORT TAXES

Motives other than revenue have determined in some cases the imposition of export taxes. The conservation of natural resources has been given as a reason for such legislation. The extensive restrictions on the export of logs and pulp wood from Canada, to be considered in a later chapter,¹⁶ have been justified on this ground. This motive is not separable from others. Conservation usually means conservation for exploitation within the country rather than in another country. Can-

ada restricts exports but encourages capital to build factories in Canada to exploit the same resources to which the restrictions apply. Mexico imposes an export tax on crude petroleum when exported, not to check its production but to reserve for Mexico, in the form of taxation, a part of its natural wealth.

About 1900 the powers interested in Africa attempted to negotiate an agreement for the protection of wild animals. The convention failed but export taxes were imposed in some countries which seem to have a similar purpose. The case of Eritrea is an example:¹⁷

Duties Applicable to Exportation of Wild Animals (*Buletino ufficiale della Colonia Eritrea*, of May 10, 1902)

The Civil Commissioner, authorized by Royal Decree of April 18, 1902, has established by Decree of May 10, 1902, the following duties to be levied per head on the under-mentioned wild animals exported from the Colony:

	<i>Lire</i>	<i>c.</i>
Lions.....	130	00
Leopards.....	80	00
Elephants.....	1,300	00
Giraffes.....	700	00
Rhinoceros.....	1,300	00
Hippopotamus.....	600	00
Curezza and other long-haired monkeys.....	50	00
Buffaloes.....	600	00
Wild donkeys.....	650	00
Zebras.....	650	00
Antelopes called: addax, nasomaculatus, strespicerus capensis (arabic nialat), taurotragus.....	600	00
Antelopes and gazelles called: damaliscus tiang, bubalus tora, sacksoni, etc. (arabic tetal), cobus defassa (arabic omhatit), hiooptragus equinus (arabic abu-araf), oryx leucoryx (arabic uahase abiad), oryx beisa (arabic met hat), cervicapra behor (arabic besemat), tragelaphus (arabic om bageot), tragelaphus spekei, gazella ruficollis (arabic reil), gazella leptoceros, capra nubiana (arabic uaal), ovis lervia (arabic cabse elgebel).....	250	00
Antelopes and gazelles called: ariel, madoqua, digdig, oreotragus saltator (arabic maresciucab), ourebia montana.....	10	00
Wild boar (phococaerus africanus).....	50	00
Orycteropus oethiopicus (arabic abu delef).....	50	00
Ostriches.....	70	00

¹⁶ Page 38.

¹⁷ Kelly's Customs Tariffs of the World (1922), p. 647.

In March, 1923, the *Gazetta Ufficiale* of the Italian Government announced increased export duties on articles of historical, archeological, paleontological interest, ancient manuscripts, incunabula, rare prints, cuts, and old coins. Whether this increase is for the purpose of increasing the revenue or for conservation is not stated, but it may be for the purpose of conservation.

Export taxes are sometimes levied for the purpose of protection. An export duty on the raw materials of an industry tends to have the same protective effect as an import duty on the finished product of that industry. Examples have been given above of the duties imposed by Spain and Portugal on the export of raw cork. One of the purposes of these duties appears to be the encouragement of the cork manufacturing industry in these countries. Another case of the employment of an export duty for the purpose of encouraging industry was the 15 per cent export duty imposed from 1919 to 1923 on untanned hides and skins when exported from British India. Before the war, the Germans controlled to a large extent the trade in these products and they were shipped to Germany and tanned there. The war stimulated the tanning of hides and retarded the tanning of skins in India. In presenting the Government bill to the Viceroy's Legislative Council, proposing the establishment of an export duty, Sir George Barnes said:¹⁸

Immense quantities of leather were required for war purposes, for soldiers' boots, for saddlery and for equipment of various kinds, and sufficient tanneries for converting hides into leather were not available outside Germany. The result was that tanneries for this purpose sprang into existence in India under the guidance, and with the friendly assistance, of the Indian

munitions board. In this way India rendered an immense service to Great Britain and her allies in the war, and incidentally greatly benefited herself. While the tanning of hides in India was fostered and stimulated by war requirements, the tanning of skins was injured, for it was found necessary to divert the energies of the skin tanners to the tanning of hides for military requirements. In fact, during a part of the war it was unfortunately necessary to prohibit absolutely the tanning of skins. The present position is that we have in India at the present time some hundreds of tanneries for the tanning of hides, a large number of which have come into existence in order to satisfy military requirements during the war.

We have, in fact, the foundation of a flourishing tanning industry, but there is reason to fear that it may tend to dwindle and disappear with the diminution of military requirements if some other support is not given. We want to keep this industry alive, and we believe that in this case protection in the shape of a 15 per cent export duty is justifiable and ought to be effective. It is clearly just also that the same measure of protection should be extended to the tanners of skins, whose business, as I have already stated, was injured by the necessities of the war.

Export taxes and restrictions have been used by some European countries to protect the value of paper currencies and to assist in industrial reconstruction. In some countries the system of licensing for export was continued far into the post-war period. Relaxation of Italian export restrictions was reported on June 18, 1923.¹⁹ But export licenses were still required for hemp and flax waste, rags, excluding tow; wooden railroad cross-ties; iron ore, except pyrites; copper, brass and bronze scrap, except turnings; iron and steel scrap; wheat, oats and uncleaned rice; cattle and fresh beef; asses, bones and metallic money.

Czechoslovakia established a rigid

¹⁸ Report of the United States Tariff Commission, *Colonial Tariff Policies*, p. 353.

¹⁹ Commerce Reports (U. S.), June 18 1923.

control of exports by means of a control of foreign exchange. That country's trading position is strong because she has many essential raw materials for export. Other countries needed her coal, minerals, including iron, and cereals and she was able to improve her position greatly.

The German Government instituted a control for the purpose of obtaining currency, supervising exports, and preventing the sale of German goods too far below the world market prices.

EFFECT OF EXPORT TAXES ON TRADE

Export taxes are not in favor generally and under normal conditions in industrial countries, but they are very widely employed in non-industrial areas.²⁰ So long as export duties are small, and levied merely for the purpose of revenue, they have comparatively little effect on trade, but when they are raised beyond a certain point, they present a number of economic possibilities.

Mr. James Iredell, later Associate Chief Justice of the Supreme Court of the United States, in the American Constitutional Convention stated the

²⁰ Gregory, T. E. G.: *Tariffs* (1921), p. 483:

"Export duties play a not unimportant rôle today, and are likely to play a more important rôle in the future.

"When we investigate the cases in which export duties are levied, we find, however, that their frequency is in inverse ratio to the industrial development of the country, and in inverse ratio to the degree of finish of the article. Except in special cases—e.g., opium or arms and ammunition—export duties tend to be limited to raw materials.

"The fact that it is less advanced on raw material-producing countries, that tend to rely to some extent on export duties, whilst manufacturing countries do not, is to a large extent due to the differences in the general economic level of such areas. Plantation areas are not suitable for direct taxation, and export duties on the staple crops represent a substitute for land taxes, just as import duties in the same areas tend to be a substitute for income taxes." (Export duties may also be a substitute for an income tax.)

opposition of the southern delegates to giving authority to the Federal and State Governments to impose export taxes in the following words:²¹

Duties upon exports, though they may answer in some particulars a convenience to the country which imposes them, are certainly not things to be contended for, as if the very being of a State was interested in preserving them. Where there is a kind of monopoly they may sometimes be ventured upon, but even there perhaps more is lost by imposing such duties than is compensated for by any advantage. Where there is not a species of monopoly, no policy can be more absurd. The American States are so circumstanced that some of the States necessarily export part of the produce of neighboring ones. Every duty laid upon such exported produce operates in fact as a tax by the exporting State upon the non-exporting State. In a system expressly formed to produce concord among all, it would have been very unwise to have left such a source of discord open; and upon the same principle, and to remove as much as possible every ground of discontent Congress itself is prohibited from laying duties on exports, because by that means those States which have a great deal of produce to export would be taxed much more heavily than those which had little or none for exportation.

A British writer has further analyzed this problem:²²

As regards British steam-coal, it is impossible to say with any certainty on whom the tax falls; the circumstances which govern its demand abroad are exceptional: it is said to possess monopoly value by its peculiar quality, and as the demand is great for naval purposes the foreign importer possibly pays part of the tax. India, however, affords a good example of revenue derived from an export duty; she produces a superior opium at a monopoly price regulated by government; this is an article for which she has peculiar advantages of pro-

²¹ McKee, Griffith J.: *Life and Correspondence of James Iredell*, Appleton and Company, New York: 1858, Vol. II, p. 212.

²² Armitage-Smith, M. A. G.: *Principles and Methods of Taxation*, p. 89, Murray, London: 1906.

duction, and for which there is a large foreign demand; China is the chief customer, and she accordingly pays the duty. During the 15th century, at the period when British wool had a monopoly value and was greatly in demand in Flanders, the export duty on British wool was doubtless paid by the Flemish importers, but they recovered it in the price of their exported cloth, which had then a great reputation.

When export taxes are imposed on products of which a country has a virtual monopoly, serious international questions may arise. In these cases, the export duty is aggressive and becomes a burden on the consumer in foreign countries. If such export taxes are exorbitant, the tendency is to stimulate the production of substitutes or the development of new sources of supply. An interesting example of the effect of an export duty in stimulating the development of a new source of supply and, therefore, defeating its purpose, is found in the case of cinnamon.

Portugal, Holland and England all in turn tried to maintain a monopoly of cinnamon. When the Dutch took over Ceylon from the Portuguese in 1656 they established a monopoly in cinnamon, completely ruling the trade and burning the cinnamon in Holland when the supply was too large and the price fell. The English took Ceylon from the Dutch in 1796 and the East India Company possessed the monopoly of cinnamon until 1833, when it was abolished by the Government. However, the English Government maintained an export duty of from one third to a half of the value; as a result the cultivation fell off because of the competition with Java cinnamon and Chinese cassia. When the Dutch lost their control over cinnamon, they immediately began to cultivate it in Java. Although the quality obtained was not equal to the Ceylon variety, they were able, nevertheless, to build up a profit-

able business because of the monopoly attempted by the English, and later because of the heavy export duties imposed on the Ceylon cinnamon. The result of the activities of both the English and the Dutch was to open a market for Chinese cassia, which resembles cinnamon and with this development no further attempts have been made to control the cinnamon trade.

Among the important products of which one country holds a virtual monopoly or a dominant position and on which an export tax is imposed are jute in India, sodium nitrate in Chile, coffee in Brazil, tin in Malaya and Bolivia, rubber in the Malay States, and bismuth in Bolivia. Some of these products will be considered in later chapters; several may be considered in this connection.

Most of the bismuth produced in the world is obtained from Bolivia. Export taxes have been levied by the Bolivian Government and these have recently been increased on the ground that the production of the metal is subject to the control of a monopoly.²² The well-known firm of Johnson, Matthey & Company, of London, virtually controls the bismuth market of the world. It is commonly reported that the United States Smelting, Refining Mining Company entered into an agreement with Johnson, Matthey & Company, whereby they were allowed to sell in the American market at the same price as the foreign company asked for its metal, on the condition that they did not purchase bismuth ores and produce the metal only as a by-product. The American Smelting Refining Company is the only other United States producer. The important factor in the bismuth industry is commercial control.

²² Mineral Industry, 1917.

EXPORT TAXES ON RUBBER

An example of the use of export taxes to restrict production and to raise and stabilize prices is furnished by the policy adopted by the British in 1922 in the case of the Malay and Ceylon plantation rubber industry.²⁴ No rubber is produced in the United States. American tire and other rubber goods industries consume more rubber than the industries of any other country and have, therefore, been greatly concerned over a Government measure which increased the price of rubber.

The development of the plantation rubber industry is almost dramatic in its interest. Before 1900 the consumption of rubber was, compared with today's consumption, relatively small and the only source of supply was the wild rubber from the Congo and the Amazon. As far back as the seventies experiments had been made with growing rubber trees in the East but it was not until the nineties that plantations were established. In 1900 the world production of rubber was 53,890 tons.²⁵ Of this amount 26,750 tons consisted of wild rubber from Brazil, 27,136 tons of wild rubber from other sources and only four (4) tons from rubber plantations. From that time onward the production of plantation rubber in the East has steadily increased and of wild rubber has steadily decreased. In 1920 the world production consisted of a little over 300,000 tons of plantation rubber and less than 40,000 tons of wild rubber. In 1921, 1922 and 1923 the amounts of wild rubber were less.

The growing of rubber under the plantation system centers chiefly in

²⁴ The World Rubber Position (W. H. Rickinson & Son, London).

²⁵ See pp. 149, and 154. *The Crude Rubber Situation*, Dr. H. N. Whitford, Department of Commerce, and *Operations of an American Rubber Company in Sumatra and the Malay Peninsula*, Mr. H. Stuart Hotchkiss, United States Rubber Company.

British Malaya and the Dutch East Indies, but there is some production in Ceylon, Borneo, Indo-China and elsewhere. British control in the industry is dominant. The British Rubber Growers' Association is made up chiefly of growers in Malaya and Ceylon, but it is in touch with other British producers in the East. About one half of the total rubber acreage in the Dutch East Indies is British controlled. "The Dutch," it is said, "own about one eighth of the total area planted with rubber in the Far East, the remainder being almost entirely British."²⁶

During 1921 and the first part of 1922 depression prevailed in the rubber industry. Prices fell disastrously. Efforts were made by the Rubber Growers' Association to restrict output by voluntary agreement. Having failed in this, its members appealed to the British Colonial Secretary to provide a plan of compulsory restriction in Malaya and Ceylon and to seek the voluntary coöperation of British and other interests in other areas. The Colonial Secretary appointed a committee to report remedial measures. It reported in June, 1922, and again in October, 1922.²⁷ An effort was made to enlist the coöperation of the Netherlands Government, but this was refused. The committee then made its final report. This report states that the following facts influenced their decision:²⁸

(a) Excessive and increasing production of rubber owing to the failure of the producers to make voluntary restriction effective with the consequent continuation of the depression in the price of rubber.

(b) The general demand by the leaders of

²⁶ Review of the Rubber Market for 1922 (Symington & Sinclair, London), p. 4.

²⁷ British Reports, Cmd. 1678 and Cmd. 1756.

²⁸ Supplementary Report of the Committee, *Rubber Situation in British Colonies and Protectorates*, p. 3, Cmd. 1756.

the rubber industry both in London and in Malaya for restrictive measures if necessary by one or more of the British Dependencies independently of the Netherlands Government attitude.

(c) The committee have had before them the latest available estimates as to the figures of the world's production and absorption of rubber in 1922, together with figures of existing stocks.

The committee finally recommended a new kind of sliding scale of export duties. The producers were to be allowed to export a certain quantity at a minimum rate of duty and if they desired to export a greater amount, the export tax would become increasingly heavy.

These recommendations were adopted. On November 1, 1922, the export of rubber (restriction) enactment No. 19 came into force in the Federated Malay States. This enactment gave the Government power to make rules for the purpose of imposing an export duty on rubber, for regulating and restricting the export of rubber from the Federated Malay States. A

certificate of "standard production" was issued for each estate based on the actual output of that estate for the year ending October 31, 1920, plus allowances for production from new areas. On the basis of these certificates export licenses for each estate are granted. A fixed percentage of an estate "standard production" can be exported at a minimum export duty. Thereafter the export duty increases and is virtually prohibitive.

The rules²⁹ provide, *inter alia*, that no person shall export rubber except under and in accordance with:

(a) A certificate of standard production (that is, the quantity of dry rubber produced from any holding between 1st November, 1919, and 31st October, 1920, or such other quantity as may be certified by the prescribed authority to be the standard production of any holding); or

(b) a coupon; or

(c) a provisional licence.

Rule 14 provides for the imposition of a duty on rubber exported under license at the following rates:

	<i>Rate of Duty</i>
(1) On all rubber exported under coupon or provisional licence.....	2 cents* per pound.
(2) On rubber exported under certificate of standard production and quarterly licence:	
(a) Not exceeding the quantity authorized by such licence to be exported at the minimum rate of duty	2 cents per pound.
(b) Exceeding such quantity in accordance with the following scale:	
Percentage by which amount of rubber exported exceeds the authorized percentage of one quarter of standard production.....	Export duty to be levied and paid on each pound of rubber exported during the quarter.
Not exceeding 5.....	14 cents
Exceeding 5 but not exceeding 10.....	17½ cents
For every additional excess of 5 or part of 5.....	An additional 3½ cents provided that the maximum export duty shall not exceed 42 cents.

²⁹ British Board of Trade Journal (July-December, 1922), Vol. 109, p. 717.

* Cents of the Straits dollar, which = \$.56 U. S. Similar restrictions are in force in Ceylon, and also in Sarawak. (Commerce Reports, June 25, 1923.)

Under the competitive system the consumer as well as the producer has an interest in having a product such as rubber raised at a reasonable profit. Only under such conditions can the supply be maintained. But the danger is that producers such as the rubber growers, who for the time being have a virtual international monopoly, may use their advantage to exact tribute of the consumer. It is this danger which led Congress to appropriate funds for an investigation and which has given impetus to the development of independent sources of supply either in the Philippines or in Latin-America.

Aggressive export taxes, however plausible their justification may be, arouse suspicion in the nation upon which the burden falls and may result in steps to break the monopoly or in retaliation. When the sliding scale tax was proposed to be levied on rubber, the British India Rubber Manufacturers' Association in Great Britain protested. Its manifesto concluded:

America is the largest user of plantation rubber, and Great Britain, through its colonies, is the greatest producer. In the case of cotton the position is exactly reversed, and is there not, therefore, the danger that a precedent is being created which may lead to retaliation?³⁰

EXPORT TAXES AND COMMERCIAL RIVALRY

Import taxes, it should be noted, are essentially protective in character. Export taxes, however, whenever an element of monopoly is present, may be aggressive. The positive effects of import taxes are confined to the home market. The positive effects of export taxes may fall powerfully and continuously upon consumers and industries abroad.

Import taxes tend to encourage the

production within the tariff wall of the products to which they apply. Export taxes tend to check production within the tariff wall, if levied upon products which compete in the international market; but if levied upon products which foreign countries must obtain from this source, they tend to protect manufactures and to force foreign countries to import half or fully finished articles rather than raw materials.

The subject of raw materials was discussed at some length at the First Congress of the International Chamber of Commerce, at London, in 1921. The following resolution was unanimously adopted:³¹

Whereas, every tax on export and import of raw materials must necessarily increase the cost of production and thereby must hinder economic development and prevent economic restoration;

And, *whereas*, it is desirable that, in order to put a stop as far as possible to the rivalries between nations in their search for raw materials, to stamp out the causes of economic conflicts which may threaten peace and to do away with the natural inequality arising from the fact that the riches of the world are unequally spread over its surface, and to assure the rapid restoration of the world's commerce;

The International Chamber of Commerce recommends the abolition of any restriction which governments have imposed or might impose on the free movement of the raw materials which are included in the list attached hereto.

In the exceptional case of certain countries being obliged, for financial reasons connected with the budgets of their colonies or dominions, to maintain fiscal or statistical duties in these colonies, these duties should be levied on all importing countries equally, including the mother country.

³¹ International Chamber of Commerce, Proceedings of the First Congress (London, June 27-July 1, 1921), pp. 89-90.

³⁰ *Literary Digest*, February 10, 1923, p. 10.

LIST OF RAW MATERIALS

Untanned hides, skins and furs.
 Wool in bulk or wool skins.
 Raw horsehair, etc.
 Silk in cocoon, raw silk, floss silk or silk in bulk.
 Raw materials for fertilizers.
 Gum in a raw state, India rubber, gutta-percha.
 Unprepared timber.
 Raw cork.
 Raw cotton.

Flax, hemp, jute and other vegetable fibres in a raw state.
 Ores and mineral products.
 Natural metals.
 Precious metal (gold, platinum, silver, etc.).
 Mercury.
 Filings and waste of metals.
 Stone and earth employed in construction and different industries, etc.
 Coal.
 Mineral oil.
 Oilseeds and fruits not used as food in their imported state.

CHAPTER IV

GOVERNMENT PROHIBITIONS, EMBARGOES AND LICENSING OF IMPORTS AND EXPORTS

The regulation of trade and industry by import and export duties, although the most obvious, is not by any means the only form of political action employed by nations to affect trade and industry. Closely associated with them in effect are export and import prohibitions, embargoes and licensing systems.

CANADIAN RESTRICTIONS AND EMBARGOES

Some of the most serious commercial problems which have arisen between the United States and Canada have resulted from certain restrictions and embargoes imposed by Canada on certain of her natural resources.³² The motives which have led Canada to adopt this policy have been stated to be first, the encouragement of the investment of capital in manufacturing in Canada, and later the conservation of her natural resources. The protectionist aim was undoubtedly dominant. These prohibitions, embargoes and restrictions have not been, in form, discriminatory, but because of the geographical relationship and the

dependence of many American industries on Canadian raw materials, they have borne heavily only upon American interests, and they have led to many protests and to some retaliatory legislation. Such policies, as has been pointed out, can, even from a purely nationalist standpoint, be adopted only within certain limitations. There has been, for example, an agitation in Canada for a number of years for placing an embargo on raw asbestos in order to influence American companies to move their factories to Canada. A factor restraining Canada from this action, however, has been the fact that American consumers may extend their purchases in Rhodesia and, if possible, in Russia, and thereby injure the Canadian producers of raw asbestos.

This policy of restriction or embargo has been adopted by the Dominion and Provincial Governments of Canada only in so far as concerns pulp wood and logs exported from Crown lands, as distinct from private lands; but the Dominion Government, within a few months, has obtained from the legislature power to extend the embargo policy to products of private lands.

³² See page 232. *Canada's Policy Respecting Pulp-Wood*. Dr. Adam Shortt, Ottawa.

On January 13, 1900, an Order-in-Council was passed in the province of Ontario requiring timber cut from the Crown lands in that province to be manufactured in Canada. This Order-in-Council was later amended and confirmed by a law, 63 Vic. Chap. 11. In 1902 this regulation was extended to pulp wood.

In the province of Quebec licenses to timber Crown lands are disposed of at public auction. In the terms of the law (R. S. Quebec, Art. 1597) the license thus acquired entitles the holder,

to cut timber on ungranted lands of the Crown at such rates, and subject to such restrictions as may, from time to time, be established by the Lieutenant-Governor in Council, and of which notice shall be given in the *Official Gazette*.

Article 1598 provides that

no license shall be granted for longer than twelve months from the date thereof. . . .

Article 1600 stipulates that

such license shall vest in the holder thereof all rights of property in all trees, timber and lumber cut within the limit of the license during the term thereof, whether cut by authority of the owner of the license, or by any other person with or without his consent.

April 26, 1910, the Quebec Government adopted a regulation which reads:

All timber cut on Crown lands after the 1st of May, 1910, must be manufactured in Canada—that is to say, converted into pulp or paper, deals or boards, or into any other articles of trade or merchandise of which such timber is only the raw material.

New Brunswick passed similar legislation on April 26, 1911.

The province of British Columbia prohibits the exportation of logs or pulp wood or shingle bolts cut from Crown lands, and charges a manufac-

turing tax on the same items cut from some Crown granted lands, which tax is rebated if the logs are manufactured in Canada.

The British Columbia law provides as follows.²³

(2) There shall be due and payable to His Majesty, his heirs and successors, a tax upon all timber cut within the province, save and except that upon which a royalty is reserved by this section or any amendment thereof, or that upon which any royalty or tax is payable to the Government of the Dominion of Canada, which tax shall be as follows:

Two dollars per thousand feet, board measure, on No. 1 grade; one dollar and fifty cents per thousand feet, board measure, on No. 2 grade; and one dollar per thousand feet, board measure, on No. 3 grade; provided that a rebate of all the tax over and above one cent per thousand feet, board measure, shall be allowed when the timber upon which it is due or payable is manufactured or used in the province. 1914, c. 32, s. 15.

Mr. Edward Beck in 1920 made the following statement concerning Canada's natural resources:

When the Canadian provinces were confederated into the Dominion of Canada, in 1867, one of the articles of Confederation conferred upon the respective provinces sovereignty and control over their own natural resources. In so far as the original provinces are concerned that condition still prevails. The same authority confers upon the Dominion Parliament the sole power to legislate on matters affecting tariffs both as to exports and imports. Consequently, while the provinces control their public domain, including the forests and the products therefrom, they have no power to pass tariff legislation and have never attempted to exercise any. The Dominion Parliament, on the other hand, while it is without power to control the administration of the natural resources

²³ Forest Act of the Province of British Columbia (consolidated for convenience only, May 6, 1921), Subsection 2 of Section No. 58.

of the respective provinces, has the power to pass tariff legislation, but has never sought to exercise it in the direction of reducing the exports of timber to the United States.³⁴

But it should be noted that the Dominion Parliament does exercise control over Crown lands in the Western Provinces and that its legislation in respect to these lands has been similar to that of the provinces with respect to their Crown lands.

As the American forests near the large consuming centers have been more and more depleted, American pulp mills have become more and more dependent upon Canadian sources for their pulp wood. The restrictions imposed by the Canadian provinces have become, therefore, more and more burdensome. If viewed purely from an economic point of view, it might seem that all that was necessary would be for the American plants to move into Canada. However, many American plants have capital invested in equipment which cannot be moved, and a cutting off of their sources of raw materials tends to make these plants useless.

In general, it may be said that the Canadian legislation has been, from Canada's standpoint, successful. It has given impetus to the general economic tendency of the building of factories near the sources of raw-material supply. American capital has invested heavily in Canadian timber and most of the new building of pulp and paper factories during recent years has taken place, not in the United States, but in Canada.

The Tariff Acts of 1909, 1913, and 1922 contained countervailing or retaliatory provisions directed against these restrictions upon exporting to

the United States. The principle of the various provisions was substantially the same—namely, that retaliatory duties were or might be imposed upon wood pulp or paper imported from any province of Canada which imposed these export restrictions on the export of pulp wood. In other words, the principle was that additional duties would be imposed upon the manufactured articles when imported from Canada, if Canada insisted upon imposing export restrictions upon the raw materials from which such products are made. These retaliatory provisions in the Act of 1897 applied to wood pulp and paper, and in the Act of 1909 to all kinds of printing paper, including newsprint; in the subsequent acts, however, their application was greatly restricted and in the Act of 1922, they apply to book paper only.

These retaliatory measures have not been successful when applied. They have simply been a burden to the American consumer of the finished product and have not resulted in the removal of the export restrictions. For this reason, the consumers of newsprint paper—that is, the publishers—when the Act of 1922 was under consideration opposed the inclusion of newsprint under the similar retaliatory provision embodied in that Act. In the debate on the Tariff Act of 1922, Senator Underwood stated that these retaliatory provisions had proved ineffective and produced no results.³⁵

³⁵ Congressional Record—Senate, Vol. 62, Pt. 8, p. 8099, dated June 3, 1922. Mr. Underwood said:

"I know of no more striking instance of that than the efforts that were made to bring about reciprocity in the trade in pulp wood, the raw material from which newsprint paper is made, in order to provide a necessary supply for the American press on which to print their newspapers. We put such provisions into the bill which is now the law in order to accomplish results of that kind, but they have proven ineffective; they have produced no results."

³⁴ Canadian Pulp and Paper Association Bul. No. 29, September 16, 1920: "Canada's Pulpwood Restriction," an Address by Edward Beck, New London, N. H., August 25, 1920, p. 2.

TRADE RESTRICTIONS AS WAR MEASURES

Great impetus was given during the war years to direct government measures restricting or regulating the import and export of products. Most of the countries, including the United States, adopted strict controls over imports and exports and established licensing systems which were administered arbitrarily in the interests of the respective nations and their allies. In the United States the administering body was the War Trade Board. As an example of these practices, which have been extended into the post-war period, consideration will be given to the effort (not successful) to establish a *permanent* prohibition on the imports of coal-tar dyes into the United States, except as the Government might grant licenses for the importation of limited quantities of specified kinds.

PROHIBITION OF THE IMPORT OF COAL-TAR DYES INTO THE UNITED STATES

The Revenue Act of September 8, 1916, contained a section increasing the import duties on coal-tar intermediates and finished products, including dyes. The provisions of this Act, with few exceptions, were satisfactory to the American dye manufacturers at the time the Act was passed. Although at that time imports were negligible, owing to war conditions, the Act encouraged the investment of capital in the building of dye plants in the United States by giving some assurance of protection when the war should end.

After the entry of the United States into the war, legislation (Trading-with-the-Enemy Act, and various amendments thereto) was passed which destroyed the power of German-owned United States patents to hamper the development of the American industry. At first, licenses to operate under these

patents were issued by the Federal Trade Commission,—later, the title to the patents was seized by the Alien Property Custodian, and the patents sold to the Chemical Foundation, Inc., which acted as a quasi-public corporation to administer the patents for the benefit of the American industry as a whole, and has, since the end of the war, compelled the former owners to pay patent license fees to sell the dyes covered by patents in the United States. Suit is now (1923) in progress to cancel this sale to the Chemical Foundation.

Toward the end of the war and immediately after the Armistice, the American manufacturers became convinced that the protection afforded by the Tariff Act of September 8, 1916, would be insufficient against renewed German competition. Influenced in part by British example, they asked that the war-time prohibition on imports from Germany be continued with a concession to consumers that products not made in the United States, or for which a satisfactory substitute was not available, should be admitted to entry by special license.

During the war the President was given absolute authority to control all imports and exports in any way which would seem to be helpful in winning the war, in particular, to insure adequate supplies of materials needed for military purposes, to control the use of shipping in the most helpful manner, to influence foreign exchange, and to aid the blockade of Germany. In practice this control was exercised through a system of licenses issued by the War Trade Board. After the Armistice this control was quickly abandoned on most commodities, but an exception was made of dyes and synthetic organic chemicals. The power given to the President for the purpose of winning the war was

utilized during the period from the Armistice to May 27, 1921, for the different purpose of protecting the new American dye industry from German competition. During this period no importation of these commodities from Germany was permitted without special license from the War Trade Board, and in practice no license would be issued unless the applicant could show that the particular dye or other product, or a satisfactory substitute therefor, could not be secured from American sources on reasonable terms as to price, quality and delivery. This policy gave substantial protection to the American dye industry in addition to the protection afforded by the tariff.

On December 12, 1918, the Tariff Commission submitted a report to the Committee on Ways and Means, pointing out many defects in the language of the Act of September 8, 1916. This report contained a draft of a bill to remedy these defects. Soon after the convening of Congress in special session during the spring of 1919, Congressman Longworth introduced a bill, embodying the suggestions of the Commission. Hearings on this bill were held during June, 1919, and at the hearings representatives of the American dye industry urged that the control of imports as practiced by the War Trade Board be incorporated in the bill, thus giving the policy a legal status which would survive the legal declaration of peace. Such a licensing control of imports was incorporated in the bill and passed the House of Representatives during September, 1919. Hearings were held on this bill before the Senate Committee on Finance during December, 1919, and January, 1920. During these hearings the opposition of certain textile mills to the plan was made manifest, but in spite of this opposition the bill as reported contained the licensing pro-

visions, although in a form very different from that in which it passed the House. The bill came up for action in the Senate during May, 1920, but did not reach a vote, owing to a filibuster. It was generally understood that the bill would have passed if a vote had been taken. In the meantime, however, the licensing plan remained in effect under the war powers and the long delay in the Senate over the Treaty of Peace prolonged the existence of this control in an unexpected manner.

The Emergency Tariff of May 27, 1921, contained a section reading as follows:

Sec. 501. (a) That on and after the day following the enactment of this Act, for the period of three months, no sodium nitrite, no dyes or dyestuffs, including crudes and intermediates, no product or products derived directly or indirectly from coal tar (including crudes, intermediates, finished or partly finished products, and mixtures and compounds of such coal-tar products), and no synthetic organic drugs or synthetic organic chemicals, shall be admitted to entry or delivered from customs custody in the United States or in any of its possessions unless the Secretary determines that such article or a satisfactory substitute therefor is not obtainable in the United States or in any of its possessions in sufficient quantities and on reasonable terms as to quality, price and delivery, and that such article in the quantity to be admitted is required for consumption by an actual consumer in the United States or in any of its possessions within six months after receipt of the merchandise.

This gave a definite legal authority for the control of imports by license which was not dependent on a legal state of war, and extended the control to dyes imported from all foreign countries. This Act was later extended until the passage of the Tariff Act of 1922.

Many friends of the American dye industry made great efforts to have this policy perpetuated in the Tariff Act of September, 1922. This became one of the most intensely controversial questions in the consideration of this tariff bill, but the effort was finally defeated. The first report of the Conference Committee continued the dye licensing in effect, but this report was rejected by the House and its conferees were instructed to insist that the licensing plan be ended.

As a compromise, however, the import duties on dyes and other coal tar chemicals were to be levied on the American valuation and duties put unusually high.

The annual Census of Dyes published by the Tariff Commission has been of substantial aid to the industry in directing the investment of capital, so that a better adjustment has been effected between productive capacity for each product and the demand for that product than could have been secured without the detailed knowledge of output of individual products and of imports, furnished by the Census.

GREAT BRITAIN AIDS THE DYE INDUSTRY

In Great Britain the Government aided the dye industry by direct financial grants to the extent of £1,700,000, of which £200,000 was a direct gift in support of research and to write off in part abnormal costs of construction, owing to the war, and the remainder was originally a loan at 4 per cent interest to be repaid in 25 years and was later converted to stock in the British Dyestuffs Corporation.

On May 15, 1918, the President of the Board of Trade stated in the House of Commons: "In order to safeguard this particular industry . . . importation of all foreign dyestuffs shall

be controlled by a system of licenses for a period of not less than ten years after the war." This policy was, in fact, put into effect, but came to an end in December, 1919, when a decision was rendered, in a test case, by Justice Sankey to the effect that there was no adequate legal basis for this control. From December, 1919, to December, 1920, German dyes could be imported without special restrictions, and, in fact, large amounts of German dyes were imported into Great Britain.

The British dye makers were suffering so seriously in competition with German dye makers that in December, 1920, Parliament passed the Dyestuffs Import Regulation Act, which prohibited the importation of all dyes and intermediates except under license.

MOTIVE FOR PROHIBITIONS OF EXPORTS AND IMPORTS

Prohibitions on exportation and on importation of products have in general the same purpose as export and import taxes which are levied for industrial reasons. But the latter bring in some revenue, while the former have the sole purpose of affecting production or distribution. They are more drastic than import and export taxes; they recall some of the harsher practices of the days of mercantilism. At the present time they are of more frequent occurrence than they were before 1914. In a world where government undertakes, in many ways, to shape the development of trade and industry, prohibitions cannot be unqualifiedly condemned.

Something may be said, for example, in defense of Canada's position concerning the restrictions heretofore placed on the exportation of pulp wood. Canada's forests are one of her chief sources of wealth. She believes that it is desirable to use them as a basis for

the development of her industrial life. She therefore has placed restrictions on the exportation of the raw material. No restrictions have as yet been placed on the exportation of pulp and paper.³⁶ The American consumer may purchase pulp and paper in the Canadian market as freely as he purchases them in the American market. American capital, furthermore, is free to erect pulp and paper factories in Canada and send their product to the United States free from export duty. Since the Canadian restrictions now in force are applicable to Crown lands alone, they have not prevented exportation of wood cut on lands which had been purchased by American interests with the object of exporting the wood.

Since the Canadian restrictions were adopted before the American paper industry had become so seriously dependent upon Canadian resources, and were, in any case, only partial in their effects, it might be argued that the restrictions when imposed did not offer the prospect of putting the American paper industry in a position of "systematic inferiority."³⁷ It will be observed that the situation in respect to the proposed extension of the Canadian embargo to wood cut on private lands cannot be defended by the arguments just used.

³⁶ Mr. Frank J. D. Barnjum, perhaps the leading protagonist of a general embargo on Canadian pulp wood, regards such an embargo as only a first step to an embargo on pulp.

³⁷ See page 54 for this expression used by Committee of the League of Nations.

EFFECT OF EXPORT RESTRICTIONS ON INTERNATIONAL RELATIONSHIPS

Export restrictions on raw materials must necessarily be considered with reference to the larger problems of international relationships. No nation is self-sufficient in raw materials. If every nation should adopt the policy of retaining for its industries the raw materials over which it has political control, the result would be far reaching changes in the economic situation of some industrial countries. The problem is not analogous to the employment of import taxes or even import prohibitions. These latter affect only the home market. Export restrictions, on the other hand, affect the development of industries in other countries.³⁸ Just as some exchange of manufactured articles on the basis of equalized competition is highly desirable, so an exchange of raw materials would seem to be desirable. American industries need Canadian pulp wood and asbestos. Canadian industries must have American cotton, coal and iron ore.

The prohibition of importations with a system of licensing of certain shipments is a more direct and a more arbitrary method of controlling import trade than is control by import duties. It no doubt has a theoretical value and in some cases and at certain times may be justified. But it raises serious administrative problems and is likely to lead to serious international complications.

³⁸ See the discussion of the difference between import and export duties, below, pp. 37 and 216.

CHAPTER V

PREFERENTIAL IMPORT AND EXPORT DUTIES ON RAW MATERIALS AND PREFERENTIAL PROHIBITIONS AND EMBARGOES

The policy of protection for national industries and the policy of tariff preference should not be confused.

Unfortunately they are, particularly in the imperial literature of Great Britain. Protection, as understood by Alexander

Hamilton, is an expression of nationalism. Its object is to diversify a nation's economic life and to afford varied opportunities for the application of the genius of a people. It may be employed either to increase a country's industries or to prevent excessive industrialization. Preference, on the other hand, is an expression of modern imperialism. It is not only protective but also aggressive. It seeks to extend to new areas the control of the economic system of the country which happens to have the political power to impose the preferential duties.³⁹

Preferential duties—both import and export—have defenders who can make out a plausible case. In the British Empire they are defended on both economic and political grounds. Domestic politics, as in Canada, have tended to shape the policy.⁴⁰ Nevertheless, when the preferential import and export tariff systems of our modern world are viewed as a whole, the conclusion is inescapable that they are a part of that economic conquest of the earth to which the expansive forces of capitalism are driving us, employing political measures where possible to achieve the ends.

THE BACKGROUND OF DISCRIMINATORY TARIFFS

Modern systems of preferences which have been considerably extended since the war have their roots in the old colonialism of the 16th, 17th, and 18th centuries. Mercantile policies of mo-

nopoly and exclusion which characterized the trade struggles of Portugal, Spain, the Netherlands, France and Great Britain, were determined by the same general motives which today determine policies of preference—the motive to increase political prestige by increasing economic strength. And it might as well be said now as it will be repeated later: *If international relations are to continue unregulated, if the security of the state is to depend on each nation having political control of all the markets and sources of raw materials its economic life requires, then such policies are justified and the strong nations should use their strength to establish and enforce preferences, trade exclusions and monopolies. This, it need hardly be added, means war—first commercial war, then military war.*

The harshness of the early commercial policies of European nations was gradually modified by the negotiation of commercial treaties. But commercial treaties seldom included in their terms the relations of the mother countries and colonies. Some that did have been denounced or violated. Systems of preferential import and export duties today characterize the colonial relations of Portugal, Spain, France, Italy, Great Britain, Japan and the United States.

Detailed discussion of these preferential relations will be attempted only in so far as they relate to raw materials. But a few of the general features of the systems of preference may be summarized.

PREFERENTIAL TARIFFS

Discriminatory tariff systems may for convenience be classified as "preferential" and as "assimilated." In the case of the preferential systems, duties in the colonies are reduced a certain percentage in favor of the trade with the mother country, and in the mother

³⁹ In generalizing in regard to scores of colonies, it is not always possible to use language which fits every case. It should be noted that Great Britain has no power to impose tariffs in the self-governing Dominions, but see U. S. Tariff Commission report on *Colonial Tariff Policies* (Chapter on South Africa) for British influence in obtaining the preferential tariff of South Africa.

⁴⁰ See page 221. *The Origin and Results of Canada's Preferential Tariff*. Dr. Adam Shortt, Ottawa.

country a certain percentage in favor of the trade with the colonies. The amount of the reduction varies widely. Most of the colonies of Portugal and Spain fall within this class. Preferential tariffs exist in Mozambique, Angola, the Cape Verde Islands, Portuguese India, Timor, Sao Thomé and Príncipe, and Portuguese Guinea. Preferential tariffs are also found in the Spanish colonies of Fernando Po, Spanish Guinea and Rio de Oro. A number of the colonies of France also have preferential tariffs as, for example, French West Africa and French Oceania. In the British Empire, preferential tariffs are found chiefly in the Dominions and in the West Indian Colonies.

ASSIMILATED TARIFFS

Comparing tariffs of the same general range of rates, the policy of assimilation is obviously more discriminatory than the policy of preferential tariffs, since the discrimination amounts to 100 per cent. It implies the complete absence of tariff barriers between the colonies and the mother country, and an imposition on foreign goods imported into the colonies of the same tariff rates that are imposed upon like goods imported into the mother country. There are usually a few exceptions to this general rule made necessary by local conditions, and certain additional charges in the nature of consumption taxes are imposed in certain colonies upon imports regardless of origin. But basically, the principle of assimilation requires the maintenance of free trade between the colonies and the mother country, with a common customs barrier around both.

The policy of assimilation has been pursued notably by France, Japan and the United States. It was adopted by France as its prevailing policy in 1892. Among the French colonies to

which this policy has been applied may be mentioned Algeria, French Indo-China, Madagascar and New Caledonia. Japan's policy has been to assimilate the tariffs of her colonial possessions, all of which lie comparatively close to her main territory. This policy includes not only Formosa but also Korea, where the open door pledge expired in August, 1920; but it does not include the leased Chinese territories. The policy of the United States has tended toward assimilation. The only non-contiguous territories which have been assimilated are Porto Rico, Hawaii and Alaska and the peculiar legal status of at least the two last-named territories places them outside the class of "colonies." In the case of the Philippines, complete free trade exists between the Archipelago and the United States, but the Philippines have a separate tariff applicable to foreign importations.

CLASSES OF PREFERENTIAL TARIFFS

Preferential import duties are more frequently applied to manufactured articles for the perhaps obvious reasons that in such articles seller competition is most keen and the manufacturers are in a position to urge their claims to preference on their home governments. If for a moment we view the problem of competition from the point of view of the non-industrial world, particularly the colonial world, we shall see that producers of raw materials in, let us say a colony, may have the same selfish motive for seeking a preferential position for their products in the market of the mother country as induced the manufacturer to seek a colonial preference for his wares. As a general rule, it may be said that industrial countries place raw materials and foodstuffs on the free list, but from various motives, several colonial powers have granted preference to the products of their

colonies in their home markets. These preferences fall into three classes.⁴¹

In the first class, in a number of countries agrarian interests have been able to obtain protective duties on agricultural products and, in some cases, these products are also produced in the colonies. Algeria, for example, exports, among other things, wines, cereals, animals and fruits. These products are dutiable in a number of the countries of Continental Europe, but they enter France free of duty under her policy of assimilation. Following the extension of jurisdiction of the United States over Porto Rico and the Philippines, the question arose whether their products should pay duties under the American tariff the same as foreign products. Opposition to complete free trade with these possessions came from the domestic sugar and tobacco producers. Unrestricted free trade with the Philippines was established gradually. By the Act of 1909, free entry to products of the Philippines, shipped directly, was granted with the exception of rice and with the limitation that free importations of sugar should be limited to 300,000 gross tons per annum and that free importations of tobacco should be limited to 300,000 pounds of wrapper tobacco, one million pounds of filler tobacco and 150,000,000 cigars. These restrictions, however, were removed in the Tariff Act of 1913.

The second class of preferences granted by the mother country to colonial products are those granted on such articles as tea, coffee, cocoa, vanilla and spices. In European countries duties on these products are usually for the purpose of revenue and the rates are in general high. A recent example of this policy of preference is found in the tariff of Great Britain adopted in 1919, under which a pref-

erence of one sixth of the full duty is granted on the following products when imported from an Empire source: Tea, cocoa, coffee, chicory, currants, dried or preserved fruit, sugar, glucose, molasses, saccharin, motor spirit and tobacco. It will be seen that these articles are luxuries or at least consumption goods; their use as raw materials is unimportant.

In the third class are the few instances where the mother country, although not producing the article and although it is a real industrial raw material, has imposed a duty on it when imported from foreign territory, simply in order that a preference might be given to that product when imported from its colonial possessions. France, for example, imposes a duty on rice and Portugal on rubber. They then grant free entry or a preference on these products when imported from a colonial possession.

WHEN THE PREFERENTIAL DUTY IS A BOUNTY

The assumption is easily made at times that the reduction of a duty on that portion of a product imported from a certain country tends to benefit the consumer. Preferential tariffs, however, only under certain circumstances result in the lowering of the prices. If practically the entire importation of a product comes from the country or colony enjoying the preference, the tendency will be for the benefit of the lower or preferential rate to be passed on to the consumer. However, if any substantial portion of the country's supply of the product affected must be imported over the full duty, the effect of the preferential rate granted to the colony is to give to the producer in the colony a bounty on his production. This, for example, has been the effect of admitting Philippine sugar and tobacco free of duty to the

⁴¹ U. S. Tariff Commission Report, *Colonial Tariff Policies*, p. 55.

American market. The general level of the American sugar and tobacco prices is determined by the rate of duty on Cuban sugar and the rate of duty on tobacco imported from foreign countries. This price is obviously the basis of the price received by the Philippine producers. The result is that the American consumer does not benefit nor does the Federal Treasury, but the free entry acts as a bonus or bounty to stimulate production in the Philippine Islands.

PREFERENTIAL EXPORT TAXES

Preferential export taxes are more commonly associated with raw materials than are preferential import taxes. These taxes, when accompanied by any element of monopoly, are distinctly aggressive and may become serious menaces to fair and equitable trade relations.

Generally, preferential export taxes are imposed for the purpose of diverting trade to the mother country. They benefit the direct shipping lines, and the entrepôt trade. In the Spanish and Portuguese colonies, additional preferences in export taxes are allowed on goods exported in national ships.

Remission of the whole or a part of the export duties on raw materials is employed not only to encourage shipping and trade, but also to encourage industry. Just as preferential import duties on manufactured goods imported into a colony are used to stimulate the industries of the mother country, so these same industries are aided, by preferential export duties on raw materials exported from the colonies, in obtaining their raw materials at an advantage over their foreign competitors.

The commercial experiences of nations furnish a number of interesting cases of this commercial policy. When the United States took over the Philip-

pinas, it found in the Spanish tariff system a number of export duties. In the Act of 1902 of the American Congress, which provided that imports into the United States from the Philippines should pay only three fourths of the ordinary tariff rates, there were two provisions affecting these export duties. The first of these provisions was that dutiable products of the Philippines imported into the United States should pay in the American customs house the duty provided by law less the amount of any export tax paid on the goods in the Philippines. In the second place, it provided that Philippine products free of duty under the American tariff act and imported directly from the Philippines to the United States "for use and consumption therein, shall be hereafter exempt from any export duty imposed in the Philippine Islands." The most important product affected by this second provision was manila. The export duty on manila in the Philippines was 75 cents per 100 kilos, or about one third of a cent a pound. At the time of the passage of the Act of 1902, it was believed that these preferentials would benefit both the Philippine producers and the American consumer, and that the loss to the Philippine Treasury would be made up by the provision that all duties collected in the United States on imports from the Philippines should be paid into the Treasury of the Archipelago. Much dissatisfaction, however, resulted in the Philippines over this preferential provision, particularly as it affected manila. Referring to this provision, one of the annual reports of the Philippine Commission stated:⁴²

⁴² Export tax on manila hemp, 62d Cong., 3d. sess., H. Doc. No. 1401, Annex A, p. 8, extract from the report of the Philippine Commission for 1905; p. 9, extract from the report of the Philippine Commission for 1906; and pp. 9-10, extract from the Annual Report of the Secretary of War for 1906.

. . . It is a direct burden upon the people of the Philippine Islands, because it takes from the insular treasury export duties collected from the people and gives them to manufacturers of hemp (manila) products in the United States. These manufacturers were already prosperous before this bounty was given them and it seems hardly consistent with our expressions of purpose to build up and develop the Philippine Islands when we are thus enriching a few of our own people at their expense. . . .

The Commission has repeatedly called attention in its reports to the action of Congress providing for a refund of duties paid on articles exported from the Islands to the United States and consumed therein. The reasons that led the Commission heretofore to recommend the repeal of that provision are still operative. . . . Nothing is more apparent than that this money has been taken out of the poverty of the insular treasury to be delivered directly into the hands of manufacturers of cordage and other users of Philippine hemp in the United States for their enrichment. The cordage interests are prosperous and do not need this help; the Philippines are poor. It is believed that legislation which takes money directly from the Philippine treasury and passes it over to a particular industry in the United States is not founded on sound principles of political economy or of justice to the Filipinos. We renew our recommendation for the repeal of this provision. . . .

This is a discrimination in favor of a special interest in America, is a selfish exploitation of the hemp industry in the Islands, gives proper cause to the English and the French to complain, and deprives the treasury of the Islands of a part of its income without just cause.

In spite of these protests, however, this preferential provision remained in force until the repeal of the provision for export taxes in the Philippines in 1913.

THE BRITISH EXPORT TAX ON PALM KERNELS

This policy of the United States was referred to by Mr. Ramsay MacDonald

in the British House of Commons, in 1916, when consideration came up of a similar preferential arrangement concerning palm kernels exported from the British West African possessions. Mr. MacDonald spoke as follows on this measure:⁴³

. . . It is a protection which is going to be paid for largely by the natives, who have no voice in this matter or in the Government which settles the economic conditions under which they have to live. As a matter of fact, when we take what it means, and take the position of the Committee, it reminds us of what Adam Smith wrote about a similar sort of method. It was, I am very glad to say, far more common 150 years ago than now, but this Report rather shows it is going to be still more common in the future than it has been in our lifetime hitherto, that interested persons are going to be appointed on committees that are to report upon how their own interests are to be conserved and advanced by political authority at home. Adam Smith says:

Of the greater part of the Regulations concerning the Colony trade, the merchants who carry it on, it must be observed, have been the principal advisers. We must not wonder, therefore, if in a great part of them their interest has been more considered than either that of the Colonies or that of the Mother Country. In their exclusive privilege of purchasing all such parts of their surplus produce as could not interfere with any of the trades which they themselves carried on at home, the interest of the Colonies was sacrificed to the interest of those merchants.

. . . The form of this proposal was the system of duty which was imposed upon the Philippine Islands by the United States Government when the United States Government imposed a certain export duty upon hemp, but when the hemp was sent direct to the United States ports then no export duty was paid. That is what is happening here. Not a single farthing of the £2 per ton proposed by this

⁴³ Great Britain—Parliamentary Debates, House of Commons, 85. 1 Aug., 1916, to 23 Aug., 1916, pp. 563-568.

scheme is effective, and of course the Colonial Secretary and the Colonial Office want the scheme to be effective. If it is effective, not a single farthing will go into the Exchequer of the West African Colonies, because all the nuts will come to the British Empire, and, consequently, all the deposits of £2 per ton will be given back to those upon whom they have been levied. The idea is that the £2 shall be nominally an export duty, but that everyone importing nuts into the British Empire and crushing them in the British Empire shall, upon the production of the certificate that the nuts have been crushed in the British Empire, claim a rebate of the £2 which has been left as a deposit. That is not an export duty at all.

. . . This pernicious policy which begins its new departure in Colonial policy may be inaugurated. This is the first effect of the Paris resolutions.⁴⁴ These may be approved and accepted. Of this, however, I am perfectly certain, when those times go by and we are in a position to consider what we have done this afternoon—if we give this Report our approval—we will see we have done two things: We have sacrificed the interests of the natives that we ought to have guarded, and we have deteriorated the honour and conditions of the Colonial policy of this Empire.

Palm kernels are an important raw material in the vegetable oil crushing industry. Before 1914, the West African kernels were exported chiefly to Germany where the oil was used in the making of soaps and margarine, and where the oil cake was used as cattle food. During the war, this trade was gradually diverted to Great Britain and in order to retain control of this raw material in the post-war period, the British Government proposed the levy of an export tax of £2 a ton on palm kernels, with a provision that this export tax should be remitted when the palm kernels were exported with a guarantee that they would be crushed within the British Empire.

⁴⁴ Resolutions of Paris Economic Conference, June, 1916.

Opposition to the preferential export tax developed in the West African colonies, but sufficient pressure was exerted from London to bring about the enactment of the measure. Local light is thrown upon the issue in a book by an experienced West African administrator. He says:⁴⁵

While some maintain that the duty has enabled the crushers in England to control the kernel market, knowing that importers could not ship their kernels abroad, Mr. J. H. Batty (head of the African and Eastern Trade Corporation), than whom there is probably no higher authority, observed to me lately that this tax had "more than served its purpose" in West Africa. Though no less opposed to it in principle than myself, he held that it had been amply justified in the special circumstances as a temporary measure. Germany, with her mills intact, with special facilities for supplying the markets of Austria, Russia and Eastern Europe generally, by rail without breaking bulk, desired again to invade West Africa and capture the kernel trade. She had, however, been prevented by the duty, and had therefore substituted copra, principally from the Dutch East Indies, thus relieving the palm kernel market of a serious competitor, and extending the demand for kernels. The merchant, he added, had not lost a penny by the tax, nor had the natives, since prices had been steadily maintained by competition. The proof of this could be seen in the prices ruling—both previously and today—as compared with copra, which for all practical purposes supplies the same needs.

A similar duty under home instructions had for some time been imposed on tin.

These preferential export taxes on palm kernels were all repealed before January 1, 1923.⁴⁶

⁴⁵ Lugard, Sir F. D.: *The Dual Mandate in British Tropical Africa*, p. 270.

⁴⁶ Gold Coast and Nigeria—Commerce Reports, October 9, 1923. Gambia—Commerce Reports, January 1, 1923. Sierra Leone—British Board of Trade Journal, July 27, 1922.

INDIA'S EXPORT TAX ON JUTE, HIDES AND SKINS

Further evidence of the lack of enthusiasm in the British colonies for preferential export taxes, the result of which is to favor industries in Great Britain, is furnished by India's experience with jute and with hides and skins. In 1918, a committee appointed by the British Board of Trade recommended that an export duty be imposed in India on shipments of raw jute "with a total rebate of the duty in favor of the British Empire." In the words of the Tariff Commission, this committee presented this case:⁴⁷

... as a clear example of the situation in which, it is agreed by all economists, when a country has an absolute monopoly of a certain product and the product is both a necessity and without a competing substitute, the whole or practically the whole of any reasonable export duty on that product must be paid by the foreign purchaser.

However, the India producers feared a development of substitutes resulting from the increase in price which would follow the imposition of such an export duty and the proposal was finally rejected.

In the case of untanned hides and skins, however, a differential export duty was imposed in 1919. An export duty of 15 per cent, the protective aspect of which has already been mentioned,⁴⁸ was established with a rebate of two thirds of this amount on exports to be tanned within the British Empire. This discrimination fell heavily upon American consumers of certain grades of hides and the tendency was for the American tanner to seek new sources of raw materials. The Indian export tax was diverting, it was believed, American skin consumers from Indian

to Chinese markets. The Commerce Reports of the United States for February 20, 1922, carried this statement (page 458):

The Indian export tax on goatskins tends to divert our purchases to China, and in 1920 we bought 19,061,548 pounds, worth \$26,633,697, of goatskins, compared with 7,304,761 pounds, worth \$2,126,706, in 1913-14, though these figures dropped to 10,585,514 pounds, valued at \$3,607,607, in 1921. The Indian industry is suffering from the decrease in our purchases and is agitating for the abolition of the export tax.

This trade situation, together with the possibility of retaliation, led to the repeal of the differential export tax on hides and skins in India about April 1, 1923. Now only a flat export tax of 5 per cent is levied and it is applicable to all hides and skins regardless of destination.

THE EXPORT TAX ON TIN ORE

A differential export tax which has long been in effect is that imposed in the Federated Malay States upon tin ore.⁴⁹ Prior to 1903, export duties were levied on tin and tin ore in the Federated Malay States as a part of their fiscal system. There were no discriminatory features. In 1903 an additional rate of duty of 30 Straits dollars per picul was imposed on all tin ore exported without a guarantee that it would be smelted in the British Colony of the Straits Settlements. This exemption from the additional export duty was extended, under a like condition, to Great Britain in 1904, and to Australia in 1916. In the official report for 1903 of the Resident General of the Federated Malay States the following appears:⁵⁰

⁴⁹ U. S. Tariff Commission Report, *Colonial Tariff Policies*, p. 337.

⁵⁰ Straits Settlements, Reports on the Federated Malay States for 1903, Cd. 2243, p. 6 (W. H. Treacher, Resident-General).

⁴⁷ U. S. Tariff Commission Report, *Colonial Tariff Policies*, p. 351.

⁴⁸ Chapter III, p. 32.

An American syndicate, which has erected large smelting works in the United States, has been making inquiries with a view to purchasing tin ore in these States for exportation to their works. Their proposals, not meeting with encouragement from the Government, have, I understand, been abandoned for the present.

A more frank statement appears in a book published in 1907 by Sir Frank Swettenham, who was Governor of the Straits Colonies and High Commissioner for the Federated Malay States in 1903. He says:⁵¹

. . . Similarly the fact that Singapore possesses the largest tin-smelting works in the world is due to the development of the Malay States. An American attempt to transfer this tin-smelting to American soil, and so obtain, in time, complete control of Malay tin production, was frustrated by imposing a prohibitive duty on the export of tin ore and giving an equivalent rebate on all ore smelted in the Straits Colony.

The situation seems to have been that a smelting works for the treatment of tin ores was being erected in New Jersey by the International Tin Company.⁵² The plant was planned to treat approximately 50 tons per day. At that time the most important sources of tin ore were the mines in the Federated Malay States. The British feared that the Americans would build up an industry to the detriment of the smelting plants situated in the Straits Settlements and would attempt to monopolize the supply of tin ore. As a matter of fact, any danger of an American monopoly was remote and conjectural; and the real object of the prohibitive export tax was to nip in the bud any possible competition with the virtual monopoly enjoyed by the smelting plants of the Straits Settlements.

Nigeria has a similar preferential

⁵¹ Swettenham, Frank: *British Malaya*, p. 333.

⁵² The Mineral Industry, 1903, p. 331, and subsequent issues.

export duty on tin ore imposed, as Sir Frederick Lugard testifies, at the direct behest of the British Government.⁵³ The preferential provision is as follows:⁵⁴

There shall be paid on all tin ore exported from Nigeria an export duty equal to 50 per cent of the maximum royalty payable in respect of tin ore as prescribed in the last preceding Regulation: Provided that if an exporter shall satisfy the Governor that all tin ore exported by him or on his behalf will be smelted in the United Kingdom or in a British Possession, the Governor shall direct that the tin ore exported by or on behalf of such exporter shall be exempt from the export duty herein prescribed, and such tin ore shall be so exempt until the Governor shall otherwise direct. (The maximum royalty is 10 per cent *ad valorem*.)

These provisions in the Federated Malay States and in Nigeria, excluding the American consumer from the most important sources of tin ore in the world, assume a serious aspect. The United States produces no tin ore. However, we are the largest consumers of tin in the world. There is no substitute for tin. The United States has developed since 1916 a considerable tin smelting industry using chiefly Bolivian ores. These ores, however, are inferior to those produced in the Far East. They contain certain impurities which cannot be removed by the ordinary smelting process. Smelting, therefore, in the United States is more expensive than it would be if the American smelters could obtain a percentage of ore from Nigeria or the Federated Malay States.

EFFECT OF DISCRIMINATORY TARIFFS ON INTERNATIONAL RELATIONS

The subject of this chapter—preferential import and export duties on raw

⁵³ Quoted above, p. 50.

⁵⁴ *Nigeria—Orders in Council, Regulations, Rules, By-Laws, 1916*—by the Government Press, Lagos. Regulation No. 8 of 1916, par. 4, p. 45.

materials—raises the issue of what limits, if any, are there to the use of tariffs to promote a nation's interest. One of the well-recognized rights of nations as now constituted is to impose moderate non-discriminatory import duties. Only on rare occasion⁵⁵ has the mere highness or lowness of tariff rates resulted in international complications. Tariff rates would seldom cause difficulties between nations if they were moderate and used merely for revenue or to protect the home market for the home producer. Much confusion in commercial policy has resulted from the mistaken conception that the adoption of universal free trade would bring universal good will. Cosmopolitanism was associated with the free-trade movement in England and men like Cobden and Bright sincerely expected the free-trade movement to result in universal peace. When analyzed, however, the free-trade movement in Great Britain was as much a *nationalistic* measure as the adoption of protection in the United States or Germany. Nations are today the recognized units of world society and so long as this is the case it is inevitable and proper that the right to develop their resources either by tariff duties or by free trade be recognized.

Preferential tariff rates, however, raise a distinctly international issue. Exclusive commercial arrangements between two nations which discriminate against third powers are certain to arouse resentment. This was conclusively shown by the American reciprocity experiences under the tariff acts of 1890 and 1897. These experiences also show by their small results the futility of such measures even from a nationalist point of view. The

Tariff Commission made an exhaustive study of these experiences and came to the conclusion that the policy which they embodied is unsound and that a policy of equality of commercial treatment should be adopted in their place. The Commission's report states:⁵⁶

So far as commercial policy and commercial negotiations are concerned, the evidence presented in the present report indicates that a policy of special arrangements, such as the United States has followed in recent decades, leads to troublesome complications. Whether as regards our reciprocity treaties or as regards our interpretation of the most-favored-nation clause, the separate and individual treatment of each case tends to create misunderstanding and friction with countries which, though supposed to be not concerned, yet are in reality much concerned. When each country with which we negotiate is treated by itself, and separate arrangements are made with the expectation that they shall be applicable individually, claims are none the less made by other States with whom such arrangements have not been made. Concessions are asked; they are sometimes refused; counter concessions are proposed; reprisal and retaliation are suggested; unpleasant controversies and sometimes international friction result.

Colonial preferences, that is preferences between the mother country and its colonies, also raise questions of far-reaching importance.⁵⁷ As has already been pointed out, these preferential arrangements characterize the colonial policy of most of the important world powers. The preferences are found usually in import, and sometimes in export, duties. In the case of preferential import duties in the colonies the mother country seeks to control for home industries the markets in areas over which it exercises political dominion. In the case of preferential export duties in the colonies the mother

⁵⁵ For tariff wars over high rates see U. S. Tariff Commission, *Reciprocity and Commercial Treaties*, pp. 475, 491, 494. Also see page 127 of this book.

⁵⁶ *Op. cit.*, p. 10.

⁵⁷ U. S. Tariff Commission Report, *Colonial Tariff Policies*.

country seeks (in some cases) to control for home industries the supplies of raw materials.

In the consideration of export taxes (without discriminatory features) it was pointed out that, when applied to a raw material of which the producers of one country or of a coöperating group of countries have a virtual monopoly, they may operate aggressively against *all* consumers outside the barrier. *Preferential* export duties may have the additional effect of giving to consumers in one country either a cheaper supply of raw material than can be obtained by consumers in the countries discriminated against or, by shutting off the supply of raw material from the excluded countries, they may destroy or prevent the establishment of an industry competing with the industry in the favored country. In other words, the effect of a preferential export duty is to extend to favored consumers outside the political unit levying the preferential duty the same benefits that a flat export duty confers upon consumers inside the political unit levying the duty.

Preferential export taxes with the provision that the preference will be granted only when a guarantee is given that the next industrial process will be performed in the country favored are distinctly aggressive. Frequently they are not taxes at all since they are high enough to direct the whole supply of the affected raw material to the favored country. If the entire supply of the raw material is forced by prohibitive export taxes to seek a market in one or two favored countries, the consuming industries in those countries can scarcely fail to benefit substantially. On the other hand, if the duty is not prohibitive, and if a substantial portion of the affected raw material is exported over the maximum export duty, the tendency is to increase the price of that

raw material in the world market and to decrease the price in the favored market, until the difference is equal to the differential feature of the duty; if the differential be small, it may not produce obvious effects upon the industry.

The increasing tendency following the Great War to impose export restrictions and taxes upon raw materials resulted in an investigation by the Economic Committee of the League of Nations. In its report this committee said:⁵⁸

There is no question of challenging the incontestable right which States have to dispose freely of their natural resources, or of the output of their countries in respect of raw materials. It is legitimate that in exceptional circumstances they should be anxious to reserve them to themselves, and that they should have the power to subject them at any time to a régime in conformity with their natural economy.

But it is not less incontestable that raw materials produced by one country being in many cases essential to the economic life of other States should not, unless in exceptional cases, be the object of restrictions or of differential regulations of such a nature as to injure the production of such States, or to impose on them a systematic inferiority. . . .

Doubtless, as a general principle, the tariff policy of States is one of their sovereign rights, and there are no doubt circumstances in which export duties or other restrictions may be necessary, *e.g.*, in cases where other sources of revenue are lacking, or where they are an indispensable element in the economic system. Nevertheless, it is undesirable as a matter of principle to employ measures of this kind under normal conditions as weapons of economic warfare. . . .

What we wish to do, without attempting to lay down any hard-and-fast rule, is to recommend caution in this matter, and in particular to invite the attention of the

⁵⁸ League of Nations: Provisional Economic and Financial Committee, *Report on Certain Aspects of the Raw Materials Problem*, p. 9.

members of the League to the broader aspects of the question as affecting international economic relations. It is not only measures of restriction or prohibition, including duties on export, which may entail grave consequences in this matter, but every artificial system which involves the risk of disorganising production, whether by its establishment or by its abolition.

DEFECTS OF PREFERENCE TARIFFS

The weakness of the principle of preference embodied in both import and export duties of colonies and the mother countries is perhaps obvious. In the first place, they tend to create conflict within the colonial empire affected. Preferential import duties in the British self-governing Dominions have never been granted at the expense of home (*i.e.* Dominion) industry. As a matter of fact, in the Dominions the policy of protection has been strongly advocated and preference has been granted only after minimum duties were established which were considered adequate for the protection of home industry. The industries of Great Britain, therefore, while given advantage as against non-empire competition, were placed at a disadvantage as against the Dominion industries and against this tendency British industries, built up on an export basis and depending on colonial markets, have protested. In India, for example, the import duty (without preferential features) has recently been increased for the purpose of protecting the Indian cotton industry against Lancashire competition. Australia also increased its minimum rates in 1920.

Another weakness of a system of preferential import tariff is that it may result in discriminations among the different parts of the empire affected. The British Empire is also a good example of this weakness. The Dominions extend voluntarily their preference to the mother country, but they

sell it to each other. They negotiate commercial arrangements among themselves on much the same principle pursued by the United States under the Tariff Acts of 1890 and 1897, and the same objections and weaknesses which appeared in the American experiences apply equally to the reciprocal arrangements developed between parts of the British Empire.⁵⁹

Another weakness of preferential import and export taxes is that they may result in retaliation by nations discriminated against. This is not by any means a theory. It has been considered in the United States and a retaliatory provision has been adopted by the American Congress.

THE RETALIATORY PROVISION ADOPTED BY THE UNITED STATES

In the discussion of the Tariff Act of 1922 several methods of tariff bargaining were considered. One method, considered and rejected, was designed to provide "for special negotiations whereby exclusive concessions may be given in the American tariff in return for special concessions from foreign countries." Offers to concede reductions in American tariff rates in return for reductions in foreign rates make a superficial appeal. They seem to arise from friendliness and to lead to a general moderation of tariff rates, but this view results from centering attention on single transactions. The experience of European countries during the last generation shows that the concessional method of tariff bargaining by its very nature leads to bickerings and to tariff wars. At best it results in concealed, if not open, discriminations against third countries. The outcome has been higher tariffs. Each country makes generous advances in rates to fortify its position for bargaining pur-

⁵⁹ See page 233. *British Dominions and the Open Door*, by Philip Kerr.

poses; and the concessions which it grants are frequently, if not usually, less generous than the preliminary increases.

The other method rejected by the American Congress during the tariff discussion of 1922 was designed to place in the hands of the President power to penalize the commerce of any foreign country which imposes on its imports, including those coming from the United States, duties which, in comparison with the duties imposed by the United States, he deems to be "higher and reciprocally unequal and unreasonable." Probably no more objectionable method of tariff bargaining than this has ever been suggested. The aim of this method is not, at least primarily, to remove discriminations, but to batter down tariff rates, equally applicable to all countries, which American export interests may regard as too high, but which the foreign country may think justified by its fiscal and industrial needs. From the beginning of our history we have been very insistent upon our right to impose any duties which we thought our domestic needs required. Frequently, foreign nations have objected to our high duties, but their claims have been denied. In view of this fact, it was inevitable that Congress would reject a method which was designed to employ penalty duties to force down the level of foreign tariffs. Furthermore, such a method was almost certain to lead to retaliation, and even when it did not provoke retaliation, the method was likely to be ineffective in opening foreign markets.

Congress finally adopted in Section 317 a method of commercial negotiation that followed the precedents established by the maximum and minimum provision of the Payne-Aldrich Act which, to quote the conferees who finally shaped the Act,

had for its purpose the obtaining of equality of treatment for American overseas commerce. The United States offers under its tariff (Section 317) equality of treatment to all nations and at the same time insists that foreign nations grant to our external commerce equality of treatment.

In detail, this section empowers the President, when he deems it to the public interest, to impose additional duties or even prohibition upon the whole or a part of the commerce of any foreign country that places the commerce of the United States at a disadvantage compared with the commerce of any other foreign country. The phraseology of the law is designed to secure real and not merely nominal equality of treatment. It is designed to secure the removal not only of open discriminations but of discriminations concealed in customs and sanitary regulations and in classifications.

This new section, while similar in principle to the penalty provision of the Payne-Aldrich Act, differs in method and also, in part, in object from its predecessor. In method the Payne-Aldrich provision was inflexible, clumsy and unworkable. Under it the President may be said to have been debarred for practical purposes from recognizing any discrimination unless it were of sufficient magnitude to justify the imposition of an additional 25 per cent *ad valorem* upon all the products of the offending country. The law permitted no adjustment according to the nature of the discrimination against American trade or according to the nature of our imports from the offending country. Under the present flexible law, any country which continues to discriminate against American trade may find its trade suffering from exactly those penalties which will do it the greatest amount of harm with the least possible injury to American importing interests.

In a special paragraph, Section 317 provides an extraordinary remedy against preferential export taxes. If the President finds that a country by means of preferential export taxes is placing the commerce of the United States at a disadvantage as compared with the commerce of any third country and if he believes that these discriminations cannot be removed by the imposition of additional duties on certain imports from the discriminating country, he may impose additional rates of duty on articles imported into the United States from any third country which benefits from the preferential export tax imposed in the second country. If the existence of these differential export duties places American industries at a disadvantage by compelling them to pay higher prices for their raw materials, these American industries may under this law receive special protection against any third country in whose favor the differential duties operate. The principle here embodied in legislation is similar to that upon which are based countervailing duties to offset bounties given by foreign governments. If, for example, the preferential duty had been continued by India on untanned hides and skins, the President, if he had felt the public interest would be served thereby, might have imposed by proclamation additional duties on leather and leather products imported from Canada and Great Britain.

Obviously, the object of Section 317 is to obtain for American commerce equal treatment in accordance with accepted standards of regulation between nations, but it goes further and includes within its scope discrimination often referred to as of only domestic concern. Most serious from the standpoint of both trade and world peace, as has been pointed out, is the system of import and export preferences which

today characterize the colonial commercial policies of the United States, Great Britain, France, Italy, Spain, Portugal and Japan. So long as the United States maintains its policy of preference in the Philippines we are hardly in a position to penalize the colonial preferences of other nations. The term "foreign country" is, however, defined in Section 317 to include dominions, colonies, protectorates, or other subdivisions of government wherein separate tariff rates are imposed.⁶⁰ It can, therefore, no longer be said that the American Congress regards colonial preferences as "domestic questions."

An indiscriminate use of penalty duties against colonial preferences was probably not contemplated by Congress. The removal of systems of preference deeply embedded in the economic and political policies of countries may call for serious negotiations rather than for retaliatory steps which might result in trade wars. In this respect the significance of Section 317 is that foreign nations can no longer ignore his views if the President raises with them some of the fundamental issues of international commercial policy. The purpose of the section is to secure merely equal treatment and if this is once secured, the additional duties are withdrawn.

THE DRIFT TOWARDS COMMERCIAL CONFLICT

The world is drifting more and more towards commercial conflict. There is evident in many countries a desire to use commercial devices for the purpose of furthering narrow national interests. Nations are not looking ahead nor visualizing the situation which may result from every country pursuing a discriminatory policy in its commercial

⁶⁰ For comments on the status of the British Dominions see page 232.

development. A wider application of the principle of the open door,⁵¹ which is already a recognized part of America's international policy, will do much to stay the drift towards imperialistic and exclusive commercial policies. Much can be done by the negotiation of commercial treaties, but the most fundamental and serious of the commercial issues between nations today must be worked out in an international conference. Merely agreeing to grant equal access to markets and to sources of raw materials is not sufficient. Nations must cooperate to

make their agreements effective. Too often the open door has been nominally accepted only to be evaded in practice. After all, there are some things which nations must do together. Nationalism, useful and essential in some fields, has its limitations. "In many ways," President Harding said on October 11, 1922, in his letter to Mr. Mondell, "real protection comes from cooperation with other nations. The best intelligence of the day recognizes the need to encourage intimacy and understanding in the social, economic and political family of nations."

CHAPTER VI

GOVERNMENT AID TO PRODUCERS AFFECTING INTERNATIONAL COMMERCE

The transition is easily made from aggressive export taxes and bounties on production and exportation to direct government aid in price fixing and stabilization. When the producers or distributors of a country have a virtual monopoly of an essential product which is chiefly consumed in foreign countries and particularly when an overproduction threatens serious reduction in prices, the producers seek the aid of government. If they have sufficient influence, their policy becomes for all practical purposes the government policy. The consumers in foreign countries have only a negative influence and the price is fixed at the point which the market will bear and which will not bring out substitutes and new sources of supply.

Examples of government aid to producers are furnished by sisal in Yucatan, citrate of lime in Italy, coffee in Brazil and cocoa in Ecuador.

⁵¹ See page 214. *Preferential Tariffs and the Open Door*. Dr. B. B. Wallace, United States Tariff Commission.

YUCATAN AIDS SISAL PRODUCERS

Of practical and vital interest, particularly to the American agriculturalist, is the monopolistic control of the production and distribution of sisal produced in Yucatan. Sisal embraces a number of tropical fibers, but the Mexican variety, known as henequen, constitutes the large bulk of the commercial supply of such fibers.

Sisal is used chiefly in the manufacture of binder twine and something like four fifths of the world's supply of such twine has been made of it—all but about 10 per cent having been produced in the United States and Canada. The United States has absorbed all but a small amount of the entire output of the Mexican henequen industry.

Sisal is grown on a comparatively small scale in East Africa and Java. It is a better quality than the Mexican henequen and commands a better price. It may be grown successfully in certain parts of the Philippine

Islands and in other tropical regions, but the crop does not yield fiber until the sixth or seventh year after planting.

During the war the *Comision del Reguladora del Mercado de Henequen* was formed in Mexico. It exercised control over the industry in Mexico but was liquidated late in 1919.

Following the war the henequen industry became very badly disorganized. Plantations were practically abandoned and their productive capacity disappeared entirely. To place them in production again requires replanting and from six to seven years wait before fiber may be taken.

Early in 1922 the *Comision Exportadora de Yucatan* was established by the Government of the Province of Yucatan. An export duty imposed upon all sisal exported by any other agency gives it a complete monopolistic control over the henequen. Under this control the price of the fiber advanced very shortly from a range of from $3\frac{1}{2}$ to 4 cents per pound to from $6\frac{1}{2}$ to 7 cents per pound, at which it was held. The pre-war price was around $5\frac{1}{2}$ to 6 cents per pound. In negotiating contracts for henequen the *Comision Exportadora* has required that from 25 to 50 per cent of the amount of fiber contracted for should be taken out of store stocks. In this manner stocks were reduced from about 500,000 bales (360 pounds each) in early 1922 to about 100,000 bales about a year later. Decreased production (936,000 bales in 1920, 565,000 bales in 1921, and 462,000 bales in 1922) made this plan to reduce excess stocks easy in application. The extent to which production has been deliberately curtailed is not known. The cost of producing the fiber is, roughly, $3\frac{1}{2}$ to $3\frac{3}{4}$ cents per pound f.o.b. plant, and the price dropped for a considerable time to less

than this cost. This would naturally result in a decrease in production.

If henequen were the only fiber from which binder twine could be made the *Comision Exportadora* would be in a position to manipulate the supply and price in such a way as seriously to affect the domestic manufacturers and users of such twine. Fortunately, however, there are satisfactory substitute fibers for the purpose. Manila is quite satisfactory for binder twine and sisal is also available from the Philippine Islands. In addition sisal from East Africa and Java, New Zealand hemp, istle and sunn may be substituted for henequen in binder twine.

Henequen holds its place as the chief binder twine fiber partly because of its lower price and, should this advantage be lost, or the supply of henequen become short, manufacturers of this twine could turn to the use of manila, or some of the substitute fibers.

While the *Comision Exportadora* has a monopolistic control over henequen, henequen by no means has a similar control over the market in raw material for binder twine. The *Comision Exportadora* may manipulate the supply and price of henequen to the benefit of Mexico and to the detriment of the United States only to a certain extent. The limit of this manipulation will have been reached when the price of henequen reaches such a point that it gives way to substitute fibers. A larger production and use of these substitute fibers may, in turn, operate to reduce their price.

The effect of the monopolistic control of henequen on the domestic manufacturers and users of binder twine cannot be accurately foretold. So long as a normal relationship in quantity and price is maintained among the various fibers which may be used

for binder twine, no radical changes may be expected. Economic factors, while not sufficient entirely to counteract the force of the complete control of the market price of henequen, will operate to limit it within certain bounds. That is, the price of henequen may increase, under present conditions, only about 10 or 12 per cent when manila will enter as a competitor for the market. This small differential, however, is itself due to the activities of the price-fixing machinery. In the period before the *Comision Reguladora* and in the interval before the organization of the *Comision Exportadora*, a rise of 50 per cent in the price of sisal would have been required to make manila available as a substitute.

ITALY AIDS PRODUCERS OF CITRATE OF LIME

The United States is dependent upon Sicily for 95 per cent of its supply of *citric acid*, either as such, or as *citrate of lime*. Imports in the past have been chiefly in the form of citrate of lime.

The production of citrate of lime in Sicily is controlled by the Italian Government through a chamber known as *Camera Agrumaria*. This chamber is made up of a certain number of producers and exporters, representatives from the Ministries of Commerce and Agriculture and a president nominated by the council of ministers.

Citrate of lime is handled almost exclusively by the *Camera* which fixes prices periodically and allots monthly deliveries to buyers all over the world. The *Camera* guarantees the producer a minimum price on citrate of lime and the Italian Government forces sales through the *Camera* by levying an export duty of 1 gold lira per quintal (.087 cents per pound) on all export sales which are not made through the *Camera*. The producer may de-

posit his output with the *Camera* and is advanced 90 per cent of the value, the balance being adjusted when sale is made.

Manufacturers of citric acid in the United States deal directly through their agents with the *Camera* for supplies of citrate of lime.⁶²

BRAZIL AIDS COFFEE PRODUCERS

Direct government control for the purpose of regulating and fixing the prices of a product has been adopted by a number of governments such as Brazil and Ecuador. The principles involved are not unlike those involved in combinations for the purpose of controlling prices and production by private interests, except that the fact that a sovereign government is the controlling factor has raised some difficult international questions. Organization by governments for the purpose of controlling the market has been put forth under the plausible term "valorization." The two cases to be considered—that of Brazil and that of Ecuador—throw interesting light upon the possible success of such efforts to modify the operation of economic law.

The first valorization of coffee by the Brazilian Government took place in 1870.⁶³ At that time the Brazilian Government purchased large quantities of Rio coffee in lieu of exchange to meet remittances abroad. The next attempt at valorization was started by the state of São Paulo in 1905. Its legislature passed a law authorizing the state government to enter into an agreement with other Brazilian States and the Federal Government for valorization of coffee and also for propaganda abroad to stimulate consumption. The states

⁶² U. S. Tariff Commission, *Tariff Information Survey*, A-1, p. 24.

⁶³ *All About Coffee*. William H. Ukers.

of São Paulo, Minas Geraes and Rio de Janeiro proposed early in 1906 to withdraw from the market such quantities of coffee as would keep down exports and maintain profitable prices. Under this plan, these states were to borrow about \$75,000,000 from European and American bankers with which to buy up the surplus coffee. To take care of interest, amortization and taxes, 3 francs (about 57 cents) to a bag of 132 pounds was to be imposed upon all coffee exported. Further coffee planting was to be checked by taxation. Although the project was abandoned by the states of Rio de Janeiro and Minas Geraes when the Brazilian Federal Government would not endorse it, São Paulo proceeded with it. São Paulo in the course of the next two years borrowed some \$30,000,000 on its own account for valorization. Half of the amount was obtained from foreign banking interests and the remainder through the Federal Government, which borrowed in London. São Paulo is Brazil's largest coffee-producing section. It had almost entirely given up the planting of corn, rice and beans in favor of the profitable coffee culture. Enormous numbers of new trees had been planted. Armies of agricultural laborers had been recruited in Europe and shipped into the coffee districts. Soon the coffee supply exceeded the then demand. Prices fell and the price decline continued until in 1903 the price was around 5 cents. Times became very hard. Mortgages held by large coffee houses and bankers were being foreclosed. The industry was passing into European hands.

In order to meet a situation, serious both economically and politically, São Paulo promised it would buy the next coffee crop and would hold it for

planters at such prices as would be necessary to continue the industry. However, in 1906-07, Brazil produced a record crop of 20,192,000 bags of coffee. To make good its promise to the planters the São Paulo Government needed an immense amount of ready cash. It therefore sent a commissioner to Europe who went to the Rothschilds first, since they had acted as Brazil's bankers for 60 years. The commissioner was flatly refused assistance; later he was turned down by practically every bank on the Continent. It was reputed to be a gentlemen's agreement among the international bankers. However, in August, 1906, the commissioner waited upon Herman Sielcken who happened to be at Baden Baden. The commissioner requested Mr. Sielcken to finance 5 to 8 million bags of coffee. Sielcken agreed to raise funds to pay 80 per cent on a value of 7 cents per pound for Rio No. 5. The São Paulo Government had already promised to take coffee from the planters at about one cent per pound above the market value and the market then stood at nearly 8 cents. The Government would have to raise money to make up the difference, but since his terms were the best obtainable they were accepted. Sielcken thereupon organized a syndicate which agreed to advance 80 per cent of the money required to buy 2,000,000 bags of coffee at 7 cents per pound. If the market went above 8 cents the Government was to make no purchases. If it fell below 7 cents the Government was to make good the difference to merchants by cable.

Before the season was well advanced the unexpected happened. Brazil was harvesting the largest coffee yield in the history of the world. The 2,000,000 bags of coffee purchased by the Government were as

a drop in the bucket. Financed by Sielcken, Schroeder, the London banker, and a few prominent European merchants, the Brazilian Government was forced to buy almost 9,000,000 bags. Toward the end of 1907 the Government had bought and withheld half the world's visible supply of coffee, but the market stood only a little above 6 cents per pound. At this point Sielcken obtained the aid of the Rothschilds and shifted the financial burden from the shoulders of the coffee merchants to those of the Paris bankers and their American associates. At the same time the Rothschilds imposed certain conditions upon the Government of Brazil. A national law was passed determining a heavy penalty for anyone who planted a new coffee tree in Brazil. The Government guaranteed further that not more than 9,000,000 bags of the next coffee crop and not more than 10,000,000 bags of any succeeding crop should be exported. By the end of 1911 the coffee market stood well above 13 cents.

For the 5 crop years after the plan for valorization was launched at Baden Baden, the world crop was nearly 90,000,000 bags of coffee, of which Brazil produced 60 per cent. The bankers' committee still held 5,108,000 bags; the rest had been disposed of. At the highest estimate consumption had exceeded production by only 4,000,000 bags. There was thus a shortage of a little more than 10 per cent in supply so far as crops went. Notwithstanding this there had been a rise of more than 100 per cent in two years in the price of coffee on the New York Coffee Exchange. Prices on this exchange determine the world level. That explains why the bankers' committee from the beginning refused absolutely to sell valorization coffee on the public exchanges of the world.

In Europe they put it up at auction and if it did not go well it was bought in for them. In America, they announced in a printed circular that the valorization coffee would be sold only on the condition that the purchasers would not deliver it on the New York Coffee Exchange. Arbuckle Brothers, who were in the syndicate, kept on buying coffee heavily as if they were attempting to corner the market. They resold it, however, at private sales exacting a written contract from the buyer that he would not deliver it on the New York Coffee Exchange or resell it to anyone that would so deliver it.

In 1911 United States Senator G. W. Norris of Nebraska called for a Congressional investigation of the operations of the valorization syndicate which he said was costing the American people \$35,000,000 a year. The Attorney General was instructed to report as to whether or not there was a coffee trust. Some believed it to be against international policy to question too closely the participation of the Brazilian Government in the enterprise. In May, 1912, an action was entered into in the Federal District Court of the Southern District of New York alleging conspiracy in restraint of trade on the part of Sielcken and a number of his associates. The petition also prayed for an injunction and receivership of the valorization coffee then stored in the United States, amounting to 746,539 bags. The injunction was denied. Meanwhile Senator Norris introduced in Congress a bill designed to give the Government power to seize importations of coffee when restraint of trade was proved. This law was enacted in February, 1913. It ended direct participation by American interests in future valorization schemes.

The valorization scheme is still in

operation in Brazil.⁶⁴ Certain of the pertinent clauses in the contract between the Federal and State Governments in the valorization plan read as follows:⁶⁵

1. Profits and losses resulting from these deals shall be distributed in proportion to amounts invested by the national treasury and states entering the agreement, it being clearly understood that any losses which may eventually be incurred shall under no circumstance, in so far as São Paulo is concerned, exceed 15,000 contos, the limit of that state's contribution.

2. The buying and selling of coffee in Santos and Rio, proportionately to the amount exported from each of these ports, shall be directed exclusively by the Federal Government.

3. All coffee purchased either in Santos or Rio shall be deposited in warehouses and insured against all risks.

4. Operations resulting from this agreement shall be finally liquidated on the sale of the total amount of coffee bought by the Government, at which time the national treasury shall present accounts to the state of São Paulo.

The State and Federal Governments of Brazil are apparently committed to the plan of valorization, and a program has been proposed to make it permanent. In the meantime the increasing competition of Colombian and other coffees makes it less and less easy for Brazil to control the world coffee price.

ECUADOR AIDS CACAO PRODUCERS

The second important case of valorization is that adopted by Ecuador in the case of cacao beans.⁶⁶ Ecuador's

⁶⁴ W. L. Schurz: *Valorization of Brazilian Coffee*, Department of Commerce, Trade Information Bulletin No. 73, Oct. 16, 1922; also, U. S. Commerce Reports, July 2, 1923.

⁶⁵ *Valorization of Brazilian Coffee*, Trade Information Bulletin No. 73, p. 3.

⁶⁶ This account of the valorization of cacao by Ecuador is based almost entirely on *Commerce Reports* and on clippings from Ecuador newspapers found in the files of the Department of Commerce and on price quotations from the *N. Y. Journal of Commerce*.

chief article of commerce is cacao. It produces only about 20 per cent of the world supply. Its production is exceeded by the Gold Coast (British) and Brazil. It might at first appear, therefore, that with so small a proportion of the world's crop any attempt at price control by Ecuador, unaided, would be certain to fail. The great bulk of Ecuador's cacao, however, is distinctive in quality. It gives the characteristic flavor to many of the chocolate and cocoa "blends." To maintain the character of their product, then, certain manufacturers must have Ecuador's Arriba cacao, and some measure of price control by producers may be successful.

In 1912 the cacao growers of Ecuador, aided by the Government, organized the Association of Agriculturists of Ecuador, partly for the purpose of protecting cacao growing in all its phases, but especially to maintain prices of the product. Market manipulation by speculating importers had placed the grower at their mercy. The Association has a president, a vice-president, and nine active directors who appoint the other officials, and two managers who carry out the directors' instructions. It operates through the *Banco Comercial* of Ecuador, Mercantile Bank of America, New York, and Huth Frederick & Company, London. It does no import business and receives no foreign goods on consignment.

The Association, officially sanctioned by the Ecuador Government, may be looked on as a government agency. To finance its operations it was empowered to collect a tax on cacao exports. This tax, originally one sucre (\$0.487 at par) per quintal of 101 pounds, was increased in 1920 to 3 sucres (\$1.46, at par). Since the average exportations are about 1,000,-

000 quintals, a substantial revenue is yielded by the tax.

The Association not only fixes a price at which cacao may be bought locally, but it also buys cacao at these fixed prices and ships on its own account. More than one half of Ecuador's cacao is handled by it. So long as the original purpose of the organization was followed it proved of benefit to its members. In two or three years, however, speculation entered into its affairs with the result that the Association became indebted to one of the local banks for about 10,000,000 sucres, with but little prospect of paying it. The World War saved the situation. The price of cacao rose to unprecedented levels; soon the organization was free from debt and its treasury well filled. The high prices of cacao continued for a time enabling it to maintain prices at the level fixed and pay for the cacao received in its warehouses. But suddenly in 1920, without warning and with practically no demand from European markets, the prices in the only available market—New York—decreased far below the price the Association had paid in Ecuador, the drop continuing until it reached a point below the reputed cost of production. New York ordinarily receives about 50 per cent of Ecuador's cacao.

The large profits the Association had amassed were suddenly wiped out by this unexpected and sudden drop in price. The business of placing the cacao on the markets had been conducted by an American banking corporation acting as agent for the Association. This bank had in its possession at New York a considerable amount of cacao. Since 80 per cent of the market value of the cacao stock had been drawn by the Association, leaving a margin of 20 per cent to protect the bank, the latter was safe

so long as the price in New York was approximately 16 cents a pound. Instead of closing out the stock the bank, to protect the agriculturists from loss, continued to hold it for an improvement in prices—which, however, continued to decline.

The Association in order to continue buying borrowed 4,000,000 sucres from Ecuador banks, guaranteed by the 3-sucre tax permitted by the Government on all cacao exported. The continued decline in prices soon swept away the product of the loan, leaving the Association in debt for about \$6,000,000 and with only about 60,000 bags of cacao on hand. With this enormous debt and with the price of cacao below the cost of production, the Association was helpless. When one realizes that Ecuador is practically a one-product country and that it faced ruin because of the cacao situation the extreme seriousness of its position may be seen. The New York bank also stood to suffer a big loss and in order to ascertain the actual conditions it sent a skilled financier to Guayaquil. After a thorough study of the situation it was decided that the Association should ship its entire stock of cacao to the New York bank for its partial protection and in return the bank agreed to finance the purchase of cacao by the Association. This took place in the fall of 1920. The reëtrance of the Association as a purchaser was immediately reflected in a stronger market for Arriba cacao.

Future developments in this attempt to control prices of cacao can not be foretold. It is evident that it may result in large losses because Ecuador does not control a sufficiently large proportion of the world's supply, and because, also, if the price of Arriba cacao is too far out of line with other grades, the purchasers in New

York can force its price down by increasing the proportionate amounts of other cacao purchased, especially cacao from the Gold Coast, the largest producer today. That this contingency has been recognized by Brazil, if not by Ecuador, is plainly shown by the following from a report of U. S. Consul General, F. W. Godding, Guayaquil, Ecuador, of July, 1922:

It is announced in the press that the Government of Brazil has suggested to the Government of Ecuador the formation of a league of cacao producers of Brazil, Portugal [*i.e.*, São Thomé and Príncipe], and Ecuador, with a view to the valorization of cacao. The Government of Brazil believes that with such a union it will be possible to counteract the depressing influence which the enormous cacao crop of the Gold Coast of Africa exercises on cacao prices. The Brazilian Government will shortly present a detailed plan for the organization and operation of such a league.

GREECE AIDS CURRANT PRODUCERS

The currant combine of Greece is another example of government aid to producers. Currant production is virtually a monopoly of Greece. The control is exercised through The Privileged Company, which has its general offices at Athens and operates through a series of branch offices in different parts of Greece. This company was established in 1905. Its object is to prevent overproduction of currants, to limit the acreage, to assist the growers with loans, to collect the tax in kind imposed by the Government, to make purchases of the surplus quantity of currants under certain conditions, and generally to do whatever is necessary to regulate the production of the currant industry. It has endeavored through advertising to increase the consumption of currants in foreign countries. In carry-

ing out its work it performs semi-governmental functions such as the collection of the land and export taxes.⁶⁷

ECONOMIC LIMITATIONS ON MONOPOLY PRICES

Economic conditions, as the discussion of these cases indicate, impose very definite limitations upon the extortion which can be exacted by those who control production or distribution. When prices are controlled and fixed at a relatively high level, they tend to bring into the market substitutes and to encourage producers in other areas to produce new sources of supply. The control of the sisal combine in Yucatan, for example, is clearly limited by the use of manila as a substitute. When the price of sisal reaches a certain point—unfortunately normally considerably above the lowest price which would give a fair return to the producers—consumers buy manila rather than sisal. In the case of coffee, the valorization and export taxes in Brazil, in so far as they are effective in increasing the price, benefit not only the producers in Brazil but also producers in other areas, encouraging them to grow more coffee for the world market in which the price is fixed by the policy pursued in Brazil. Where, however, there is no substitute, and no alternative source of supply, as has been the case in regard to nitrates, a buyers' strike is the only limitation upon the extortion which has been and is practiced by the monopolists. The only question in the mind of the monopolist is: At what price will the profit per unit multiplied by the number of units which will be consumed at that price yield the maximum net profit? Producers'

⁶⁷ Federal Trade Commission, *Coöperation in American Export Trade*, Vol. 2 (1916), pp. 130 and 131.

coöperation, with or without government aid, particularly in the case of certain food products, is being defended, however, on the ground that

it lowers distribution costs and that its chief object is a stabilization of prices in the interests alike of the producer and of the consumer.

CHAPTER VII GOVERNMENT MONOPOLIES

Actual government administration of production is rare as compared with government supervision or support of private enterprises. In actual practice, however, the interest of government in the exploitation and distribution of essential resources is a matter of degree. If a raw material is, or is believed to be, vital to a nation's welfare, public opinion will force the use of the agencies of government in support of the private company which controls that raw material, or in other cases, governments themselves directly control the enterprises.

Government monopolies may be for the purpose of profit as in the case of the spice trade, or it may be to assist the consumer as in the case of the Nauru phosphates.

GOVERNMENT MONOPOLIES IN SPICES

The first known monopoly of the spice trade⁶⁸ was maintained by Venice in the early part of the 15th century. After the destruction of the Genoese fleet by the Venetians in 1380, this Italian republic entered on what is now recognized as the greatest century of her development. Moorish merchants, beginning with the 13th century, brought far eastern products to the port of Suez, thence by caravan to the

Nile and down the Nile to Alexandria. The Venetians, by means of large fleets, controlled the ocean passage from Alexandria to Venice and maintained a monopoly of the spice commerce with the Moorish merchants. Western Europe and England were served yearly by fleets of galleys, although the shipments to Germany were transported overland by closely-guarded pack trains.

At her peak of power it is estimated that the Venetian traffic in spices alone amounted to over \$10,000,000 annually, a large sum of money in those days.

The large profits made by Venice in the handling of spices of course caused many other countries to think of reaching the Oriental source of supply. The problem was finally solved by Vasco da Gama in 1498. In 1497, King Manuel of Portugal sent Vasco da Gama with a fleet of three small vessels to discover the spice countries. The expedition sailed around Africa and after visiting Mozambique and Zanzibar reached Calicut, India, in August, 1498. The first cargo that da Gama took back was composed of pepper, cinnamon and ginger. The expedition returned to Lisbon in 1499 and was promptly followed in 1500 by a fleet of thirteen ships. Numerous other ships were sent out, all of which largely traded for spices along the Indian coast.

The immense profits of the Venetians were gone, never to return, and the subsequent mercantile career of this republic was now only in the distribu-

⁶⁸ The following sources of information have been freely drawn on: Ridley, Henry N., *Spices*; LaWall, Charles H., "The Romance of Spices," *American Journal of Pharmacy*, April, 1923; Smith, J. Russel, *The World's Food Resources*; Gibbs, W. M., *Spices, and How to Know Them*; U. S. Department of Commerce Reports and Consular Reports.

tion throughout Europe of the products brought by the Portuguese to Lisbon, for, strangely enough, the latter never seemed to care for the profit beyond the original handling and this indifference was eventually to cause them the loss of the entire trade.

The first steps the Portuguese took were to secure the absolute monopoly of the spice trade. They attempted to maintain this monopoly and destroyed all Moorish vessels encountered on their journeys. The policy of the Portuguese was not to annex territory but to establish numerous "factories" or supply stations.

In 1505 the Portuguese reached Ceylon, the land where the finest cinnamon grows. In 1509 they obtained a foothold in Malacca, more than a thousand miles to the east, and in 1511 they reached Banda Islands, now the chief source of the world's supply of nutmeg. The Molucca Islands, or Clove Islands as they have been called (because they were the only islands in the world at that time where the clove tree was found), were reached in 1512. The Portuguese were the first Europeans to arrive at these tiny islands which were to cause centuries of strife between the Moors, Portugal, Spain, Holland and England, in which strife the islanders were exterminated and the trees destroyed. At the present time the clove tree does not exist even in the wild state in its original habitat.

The Dutch revolted from Spanish rule in 1567. In 1580, when Spain and Portugal became united, Philip II decided to strike a final blow at the Dutch and destroy their commerce. He forbade Dutch vessels to trade in Spanish or Portuguese ports under penalty of confiscation and imprisonment of their crews. This action became the occasion for developing direct intercourse with the Indies, the large

profits of which had already made their appeals to the Dutch.

In 1596 an expedition was sent out from Holland by the Cape route. It visited numerous native ports and was greeted everywhere by the evidence of Portuguese hatred. The fleet returned to Holland in 1597 laden with spices. Within a few months another and larger squadron was sent out and this reached Bantam Harbor in 1598. This important harbor, at the extreme west end of Java, was a large pepper market.

Soon after the Dutch commenced their trade with the East, the merchants of Europe began to complain that spices were becoming too cheap. The Dutch, therefore, granted to the East India Company a charter conferring the exclusive right to trade to the east of Cape Good Hope, and to sail through the Straits of Magellan. This Company was given the power to make treaties, levy troops and build forts.

The English broke the Dutch monopoly by cultivating nutmegs, mace and cloves in Sumatra and Penang. The East India Company sent Christopher Smith in 1796 to the Molucca Islands to collect spice plants. As soon as Penang spices were being produced in commercial quantities, it was noted that they were of better quality than the average run of Dutch spices. With the increase in the production in the English colonies the prices fell and in 1865 nutmegs sold for 1s. 3½d. and mace for 1s. 4d. The price since has been steadily declining, except for a few large fluctuations. At the present time the price for nutmegs is about 20 cents per pound. This fall in market value has been interpreted by an authority such as Ridley as not being due to overproduction because the exports from the Dutch East Indies have not shown any increase in the last forty

years, and yet the price fell to as low as 10 or 11 cents in 1909. However, consideration must be given to the fact that in trying to break the Dutch monopoly the English introduced the nutmeg tree in Grenada in the West Indies, and the production there has been steadily increasing both for nutmegs and mace. In 1922 there was exported from Trinidad, B. W. I., 2,524,704 pounds of nutmegs and 356,832 pounds of mace. The exportation of nutmegs from the Dutch East Indies in 1906 was 6,155,970 pounds. This figure is about normal for present exportations also.

The Dutch used similar methods for maintaining a monopoly in cloves by confining its production to Amboyna and making periodical trips to other islands to exterminate the clove trees. They pursued this policy with great inhumanity. Their attempts to keep the trade entirely in their hands were not altogether successful. Large supplies reached England independently of their Government. However, the Dutch maintained almost a complete monopoly until the end of the 18th century, when the English and the French seriously challenged their supremacy. Clove trees were introduced in various parts of the world at that time, particularly in the French colony of Mauritius. From this point an Arab from Zanzibar conveyed clove plants to his country and laid the foundations of the important and extensive plantations in Zanzibar and Pemba, which are now the chief source of the world's supply of cloves. The English, as mentioned before, introduced the clove in Penang in 1786. The development of these new sources broke the Dutch monopoly so completely that the Dutch East Indies are no longer an important factor in the trade. In 1920 the total exports of the Dutch East Indies of cloves was 92,560 pounds. As long ago as 1890 Zanzibar

and Pemba exported more than 18,000,000 pounds.

THE GERMAN MONOPOLY IN POTASH

The United States is almost entirely dependent upon foreign sources for its normal requirements of 250,000 tons of actual *potash* per year. Before the war our requirements were all imported from Germany. Germany then controlled the world's production and markets.

Under the terms of the Versailles Treaty the potash mines in Alsace-Lorraine were ceded to France, so that the German monopoly has been partially broken. France shortly after assuming control of the Alsatian deposits formed an organization for the purpose of controlling production and sales. Prices of the French agency—*Société Commerciale des Potasses d'Alsace*—have followed those of the German syndicate.⁶⁹

During the war potash was produced from numerous sources in this country but the maximum output did not exceed 55,000 tons of actual potash in any one year, or 20 per cent of consumption. Since the war the domestic production has declined, and the United States is again dependent upon Europe for its supply. Known potash deposits in the United States are at geological and geographical disadvantages as compared with the German and French deposits.

The industry in Germany is controlled by a syndicate in which the Prussian Government is a partner, and which has been supported by the Government to the extent of compelling all mines to join it. The syndicate fixes the price of potash and has maintained it above a competitive price, but low

⁶⁹ Federal Trade Commission: "Report on certain phases of the fertilizer industry" in response to Senate resolution of June 17, 1922 (1923), Document 347, p. 6.

enough to keep an almost complete monopoly of the world's markets. The syndicate has been active in stimulating the sale of potash throughout the world by means of advertisements, demonstration farms and exhibits. Higher prices have been exacted from the foreign than from the domestic consumer.

French competition in potash has not developed to the extent that was expected; imports into the United States from France have probably not exceeded 20 per cent of our consumption. An unsuccessful effort was made within the past year to reach an agreement between the German and French producers as to division of markets and fixing of prices. The French occupation of the Ruhr may have the effect of decreasing German competition, as the German potash mines are dependent on Ruhr coal. This would give France an opportunity for further development of her potash deposits.⁷⁰

SPAIN'S MONOPOLY IN QUICKSILVER

Spain in the Almaden Mine possesses the richest deposit of *quicksilver* in the world. Formerly, and for a number of years, through an agreement with the Spanish Government the Rothschilds controlled the marketing of the Spanish product. This agreement expired recently and the Spanish Government now markets its product direct. They practically control the quicksilver market of the world, for their resources are such that, if they so desire, they could flood the market with cheap metal. According to the terms of the Peace Treaty, the Italian Government took over the rich Idria Mine, formerly belonging to Austria, so that with the Monte Amiata deposit they now have resources of quicksilver comparable with those of Spain. Recently there

have been rumors that the two governments are seeking to form a combination with a view to controlling the quicksilver market of the world.

JAPAN MONOPOLIZES CAMPHOR

Camphor occurs in the volatile oils obtained by distillation of the camphor trees. It is an important ingredient in the manufacture of celluloid. The camphor tree is indigenous to the Island of Formosa, to China, and to Japan, and has been successfully grown in Florida in this country. Formosa furnishes the great bulk of commercial camphor. In 1899 the Japanese Government took over the camphor industry of Formosa, improved methods for obtaining the camphor, and established a system of replanting. In the years 1900-1909 some 11,500,000 camphor trees were planted within Japanese territories. A tree is 50 years old before it is cut. This camphor monopoly is controlled by the Japanese Government. The Government licenses producers of camphor and camphor oil, and reserves the right to restrict production. The crude camphor is sold to the Government at a fixed price, the refining of which is the exclusive right of the state. The Government fixes the selling price and allocates periodical supplies to the consuming countries. Its ability to fix prices is limited only by competition from synthetic camphor and the exactions which the celluloid market will bear.

In an endeavor to prevent the destruction of their camphor trees the Chinese placed a tax of 75 cents per 100 pounds of camphor, and 28 cents per 100 pounds of oil, the taxes collected to be expended in planting and cultivating new trees.

During 1919 and 1920 the du Pont Company manufactured synthetic camphor on a large scale from turpentine,

⁷⁰ *Chemical Trade Journal and Chemical Engineer*, Mar. 2, 1923, p. 254.

the price of camphor at this time being very high. The price of natural camphor now (1923) is such that none of the synthetic product is made in this country, but it has been made successfully not only in the United States but in Germany. Some camphor groves are also being developed in Florida.

THE BRITISH MONOPOLY OF NAURU PHOSPHATES

An unusual case of the control and exploitation of a natural resource by governments is the case of the purchase of the *phosphate* concession in the Island of Nauru by Great Britain, Australia and New Zealand. This case is of particular interest since the Island of Nauru is held by the British Empire as a Class C mandate under the League of Nations.

The Island of Nauru is situated in the Pacific Ocean to the west of the Ellice and Gilbert Islands and south of the Marshall Islands, and is believed to be the largest reserve of high-grade phosphate in the world.⁷¹ The Island was annexed by Germany in 1888 and on September 9, 1914, was surrendered unconditionally to an Australian ship. It was turned over by the Allied and Associated Powers under a mandate to the British Empire. The phosphate concession was held from the German Government by a private syndicate.

On July 2, 1919, the governments of Great Britain, Australia and New Zealand entered into an agreement to purchase this concession. This agreement provided, among other things, that the phosphates are to be sold at cost to the three governments, the cost price to include interest, a sinking fund for the payment of the capital, working expenses and contribution to administrative expenses. No phosphates are to be sold to or for shipment to any

⁷¹ Morocco has deposits reputed to be rich.

other country until after the requirements of Great Britain, Australia and New Zealand have been met, and then only at the market price. The agreement was ratified by Australia and New Zealand and when presented to the House of Commons called out a very interesting debate. The British Government contended that the agreement was not contrary to the Covenant of the League of Nations. Colonel Leslie Wilson, the Parliamentary Secretary to the Ministry of Shipping, who sponsored the bill for the Government, declared that the question of this transaction between the three governments was

entirely distinct from any other question which might arise as to the mandate under the League of Nations. This is a purely commercial transaction between the phosphate company and the three governments concerned. Whatever happens, I cannot see that the League of Nations has any right to interfere with this particular transaction between the company and the governments concerned. I do not see the difference between the purchase of this trading company by the three governments and the purchase by an individual.⁷²

Colonel Wilson even went so far as to deny that other nations were entitled to equal treatment in trading with Nauru.

The mandate (he asserted) was granted to the Empire. . . . There is no doubt from the papers laid on the table of the House, and from facts which have been accepted by that great exponent of the League of Nations, General Smuts, that there never was the slightest intention that Class C mandates should be subject to the principle of the open door.⁷³

Mr. Bonar Law, then leader of the House, took the same position.

Nauru in effect is a phosphate island (he argued). It has been a commercial under-

⁷² Parliamentary Debates, House of Commons, Vol. 130, No. 78, p. 1358; and No. 80, p. 1609.

⁷³ *Ibid.*, Vol. 132, No. 102, p. 195.

taking. It was in the possession of a company . . . and if we do not pass this bill, that company would have every one of the rights which we are now claiming for the British Empire. It could treat the product of that Island in any way it liked, and therefore it is obvious that, so far as the general good of the world is concerned, nothing is lost by transferring this power to a body represented by the British Empire as compared with a private trading company.⁷⁴

He declared, however, that

passing this bill does not in any sense preclude the League of Nations, if they think the arrangement is an unfair one, from refusing to confirm it. . . . I have myself no doubt that the League of Nations will agree to it.⁷⁵ I do not think any supporter of the League of Nations could say that they have the right to upset a purchase of this kind. They have the right to interfere with the administration. I think this is so vital that I would like to make it clear. . . . The two questions are quite distinct. One is the administration of territory, which the League of Nations has a perfect right to see is properly done. The other is the purchase of a trading company. I do not think that is a subject which would properly come under the League of Nations at all.⁷⁶

On the subject of the open door the leader of the House said:

It is only in the fifth paragraph of Article XXII of the Covenant of the League of Nations that "equal opportunities for the trade and commerce of other members of the League" are expressly provided for. The territories to which this provision applies are those which formerly constituted German East Africa, the Cameroons and Togoland. In the case of the former German colonies, which, under the sixth paragraph of Article XXII are to be administered "under the laws of the mandatory as integral portions of its territory," the provision of equal opportunities for trade and commerce will be a matter for the discretion of the mandatory.⁷⁷

⁷⁴ *Ibid.*, Vol. 130, No. 78, p. 1324.

⁷⁵ *Ibid.*, p. 1326.

⁷⁶ *Ibid.*, pp. 1326-1331.

⁷⁷ *Ibid.*, Vol. 131, No. 97, p. 2164.

The position of the Government was vigorously assailed in the debate on the bill, particularly by the Liberal and Labor parties of the House, who charged that the agreement was a violation both of the spirit and letter of Article XXII of the Covenant of the League of Nations. Mr. Ormsby-Gore questioned the right of a government which is acting as a mandatory to establish a government monopoly of the raw materials of the territory of which it is trustee.

That is a root principle (he said). Because, if that is once established, I do not see why the French in the Cameroons should not establish a government monopoly of all the native produce of that country, and why all the produce of other places should not be similarly regulated.

A great many people want to see the League of Nations a reality and to see the Treaty of Versailles carried out, and they do not want this country to be the country which is going to fly in the face of a conference with results which are bound to be extremely far-reaching, because it is really a test question. If these mandates are a sham, are only camouflage, it is much better to be out of the Covenant, much better to withdraw our signature from the Covenant. Then we should know where we are. Either you are going to act up to Article XXII or you are not, because that is going to be the question asked in Mesopotamia, Palestine, and all these countries of the world. There is no use in saying that we are working this in the Belgian part of East Africa, that we will see that the French are not allowed to conscript people in Togoland under Article XXII, but when it comes to applying that article to our possession, then we are going to tear up the mandatory principles and create these government monopolies.⁷⁸

Lord Robert Cecil, leader of the opponents of the agreement bill, said:⁷⁹

⁷⁸ *Ibid.*, Vol. 130, No. 78, p. 1311 *et seq.*

⁷⁹ *Ibid.*, p. 1321.

Some honorable gentleman suggested that this is nothing but sanctioning a purely commercial agreement handing over the powers of the phosphate company to the British Government. It is nothing of the kind. The phosphate company, in fact, was working under the German Government—let us remember that—and while working under the German Government it traded freely with those who became subsequently the enemies of Germany. . . . Here we are going to preclude the possibility of a single ton of phosphate being sold to anybody except the three governments concerned and for our own personal use.

I will not say (he continued) if the League were to sanction that arrangement that that would not be consistent with the terms of the Covenant, but I do say it is altogether inconsistent with the spirit of Article XXII. Undoubtedly, there was no idea that the mandatory was to use this power in order to secure a monopoly of the riches of the mandated country. That is absolutely inconsistent with the whole framing of Article XXII.

It seems to me if we go on with this proposal it is perfectly fatuous for us to talk any more about scraps of paper.⁸⁰

Mr. Herbert H. Asquith, leader of the former Liberal Government, asserted that the agreement is one which has no legal or international validity of any sort or kind and which, indeed, in the terms in which it is made, is in flagrant contravention of both the letter and the spirit of the Covenant of the League of Nations. It is a small case in itself, but it would be a precedent. If this is done in the case of the Island of Nauru, there is no reason why similar agreements should not be secretly and behind the back of the League of Nations concluded all over the world.

This is the latest form of preference! Here is a mandate given to the British Empire, confined so far as its practical operation is concerned to three of its constituent members, and, what is much more important, when you come to hand over the phosphates for them to go to three selected parts of the Empire and not to the rest.

. . . You are going to give preferential

⁸⁰ *Ibid.*, p. 1319.

treatment to particular parts of your own Empire as against the rest of the world. A worse example to set and one in more open contradiction to the provisions of the fifth paragraph of Article XXII, which provides that in the execution of a mandate equal opportunities shall be secured for the trade and commerce of all the other members of the League, I think it is impossible to conceive. It is illegal in its origin, unequal in its operation, it is opposed in all respects to the letter and the spirit of the Covenant of the League of Nations.⁸¹

The bill providing for the ratification of the Nauru agreement was finally amended in its ratifying clause to read:

The agreement is hereby confirmed, subject to the provisions of Article XXII of the Covenant of the League of Nations.⁸²

No action has been taken by the League of Nations and the agreement concerning the exploitation of the phosphate deposits is now being carried out under the direction of the British Phosphate Commission. The minutes of the Permanent Mandate Commission indicate, however, that there is some doubt as to whether this agreement among the three governments is not in violation of the Covenant of the League of Nations. The following passages are from the minutes of the second session of the Permanent Mandate Commission held in Geneva August 1 to 11, 1922:

M. Orts was anxious for a slightly more detailed explanation of the position. The territory was under the mandate of the British Empire. The British Empire was apparently a shareholder in the British Phosphate Commission, having combined with the governments of Australia and New Zealand to buy out the Pacific Phosphate Company. At the present moment, the Australian Government, and, in general, one of the three Governments in turn nominated the Administrator. It would be

⁸¹ *Ibid.*, pp. 1322-23.

⁸² The Nauru Island Agreement Act, 1920 (10 and 11 Geo. 5, Chapter 27).

desirable that, in the next report, definite information should be given on the method by which the mandatory government exercised a control over the British Phosphate Company (p. 37).

Sir Joseph Cook replied that the British Empire was not a shareholder in the British Phosphate Commission. It was the sole owner of the works, which had been purchased by the British, Australian and New Zealand Governments from the old company at a cost of £3,500,000. There was an Administrator, nominated at present by the Australian Government, and subsequently to be nominated by one of the three Governments concerned. On the other hand, the British Phosphate Commission was administered by the three Commissioners, subject, as to duration of office, to the will of the Mandatory. The relations between the Administrator and the Commissioners were as follows: The Commissioners were not subject to the control of the Administrator, except in so far as they were bound to observe the terms of the Nauru Island Agreement Act, 1920, and to comply with the various ordinances promulgated by the Administrator for the government of the island. The Administrator had all the powers of government—administrative, legislative and judicial—in the island, *e.g.*, police, education, justice, etc. (p. 37).

On the other hand, the British Phosphate Commission exercised control over deposits which were contemporaneous with the island itself. In this connection, it should be remembered that nothing in the island was of much economic importance excepting the phosphate deposits. The original *Jaluit Gesellschaft* had virtually administered the island as a concession, under the nominal oversight of the Imperial German Government. The rights transferred from the *Jaluit Gesellschaft* to the Pacific Phosphate Company were purchased in 1919 by the governments of Great Britain, Australia and New Zealand, and these Governments had in their turn vested the control of the works in the present British Phosphate Commission. The duty of the three phosphate Commissioners was, therefore, to work the deposits and to administer the

liability incurred as a result of the purchase before mentioned (pp. 37-38).

* * *

Finally, the Commission noted the following points in connection with the Island of Nauru:

This tiny island, which is hidden in the vast extent of the Pacific, has only about 2,000 inhabitants. Its sole wealth—and it is considerable—consists in vast and rich deposits of phosphates. The Mandate for this island was conferred by the Principal Allied and Associated Powers upon the British Empire, which delegated the working of this mineral wealth to Australia, Great Britain and New Zealand. These three Governments have devolved upon Australia the responsibility for the administration for a first period of five years. From information supplied by the mandatory Power, the Commission finds ground for fear that the fundamental principle of the institution of mandates may, as regards its application to this island, be prejudiced in two ways.

It fears on the one hand that the disproportion between the material wealth of this island and the small number of its inhabitants may induce the mandatory Power to subordinate the interests of the people to the exploitation of the wealth. It is, therefore, not without deep concern that it considers the question whether the well-being and development of the inhabitants of this island, which, in the words of the Government "form a sacred trust of civilization," the accomplishment of which it is the Commission's duty to safeguard, are not in danger of being compromised.

It is, moreover, concerned with the consideration of the question whether the mandatory Power, by reserving the ownership and exclusive exploitation of the resources of this territory to itself, has brought its policy into true harmony with the requirements of the Mandate which, in accordance with the Covenant, it should exercise on behalf of the whole League of Nations (p. 55).

INTERNATIONAL CONTROL OF THE SEAL TRADE

An interesting case of government control under an agreement to conserve

an international resource is the Convention for the Protection and Preservation of the Fur Seals and Sea Otter, between the United States and Great Britain, Russia and Japan, signed July 7, 1911, and effective December 15, 1911, continuing for a period of 15 years, and thereafter until terminated by 12 months notice. The Convention has these provisions:

(a) Prohibits subjects of these nations from engaging in pelagic sealing (the killing, capturing or pursuing of fur seals at sea) in north Pacific waters north of 30° N, including seas of Bering, Kamchatka, Okhotsk and Japan.

(b) Closes the ports and territory of these nations to persons and vessels engaged in such operations within the closed area and prohibits importation of unauthenticated seal skins of species common to the closed area.

(c) Excepts certain aborigines with limitations.

(d) Provides for necessary legislation and enforcement including patrol of waters frequented by the fur seal herd and co-operative effort to prevent pelagic sealing.

(e) Of the annual killing of seals on the Pribilof Islands or other islands under United States jurisdiction, the United States agrees to deliver 15 per cent, gross in number and value, to (1) an authorized agent of the Canadian Government; (2) the agent of the Japanese Government.²³

(f) Provides certain advance payments (\$200,000) to each; an annual payment of \$10,000 in years when no killing of seals is permitted; and sets a minimum (1000) as to the number of skins to be delivered in any year in which killing is permitted; subsequent reimbursement for any advances made being provided for.

(g) Similar provisions governing the seal herd breeding upon (1) the Commander Islands of Russia, payments to Japan and

²³ This provision has since been modified (1918), Canada and Japan each receiving 15 per cent of the net revenue from the sale of skins received by the United States Government.

Canada; (2) and Robben Island, Japan, payment being made to the United States, Canada and Russia.

(h) The United States is in no way restricted from suspending the taking of seal skins on the seal islands or imposing such restrictions and regulations as it may deem necessary to protect and preserve or increase the seal herd.

Fur seals roam over the north Pacific for very long distances, returning to their rookeries each year to breed. Pelagic sealing is extremely destructive because of the necessary indiscriminate killing of females and "pups" as well as males, escape and subsequent death of wounded animals, etc. On the rookeries, selective killing, counts of the herd and proper conservation measures are possible.

Prior to 1910, the killing was by commercial companies operating under a lease. In the forty years preceding, the herd was depleted from some 2,000,000 animals to 132,279 in 1910, when the direct management was taken over by the Department of Commerce. Under the latter administration, the number increased to approximately 605,000 in 1922. The average net price per skin received by the Government, 1870 to 1889, was \$3.15; 1890 to 1909, \$9.30, and under the Department, 1910 to 1921, \$31.20. Sales of skins in 1921, exceeded \$1,000,000. Under the leasing arrangements, the Government received no revenue from the sale of fox skins on the Pribilofs. Since 1910, such sales have netted the Government in excess of \$400,000.

Furthermore, the Government has succeeded in having the seal market transferred from London to St. Louis, where the skins are dressed and dyed and sold at public auction. This city is now the largest fur market in the world.

CHAPTER VIII

FINANCIAL CONTROL OF RAW MATERIALS BY PRODUCERS

A striking phenomenon of the modern economic world is the integration of capital into corporations, combinations, trusts, holding companies, and kartells which at times rival even governments in power. These large aggregations of wealth have given industrial and financial leaders great power and have created problems for constructive statesmanship both in domestic and in international affairs.

COMBINATIONS DISCOURAGED IN DOMESTIC TRADE

Combinations of producers for the purpose of controlling the market are common in modern business organization. In the United States not only the state governments but the Federal Government has attempted to limit their power and regulate their activities. The Sherman Anti-Trust Act (1890) and the act of February 12, 1913, provide:

Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.

* * *

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, . . .

* * *

Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the

District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal.

* * *

The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act: . . .

* * *

That every combination, conspiracy, trust, agreement, or contract is hereby declared to be contrary to public policy, illegal and void when the same is made by or between two or more persons or corporations either of whom, as agent or principal, is engaged in importing any article from any foreign country into the United States, and when such combination, conspiracy, trust, agreement, or contract is intended to operate in restraint of lawful trade, or free competition in lawful trade or commerce, or to increase the market price in any part of the United States of any article or articles imported or intended to be imported into the United States, or of any manufacture into which such imported article enters or is intended to enter.

* * *

A large number of decisions have been handed down by the courts in the anti-trust cases. Both restraint of trade voluntarily among competing groups and unfair competition have been held illegal. A further step toward regulation of business practices was taken in 1914 when the Federal Trade Commission Act was enacted. One of the purposes of this Act is to stop unfair methods of competition before they result in the elimination of competitors, *i.e.*, to nip monopoly in the bud, as was claimed. Under this Act a valuable body of commercial law for the regulation of business is developing.

COMBINATIONS ENCOURAGED IN EXPORT TRADE

The same degree of restraint has not been placed on domestic combinations of capital by European governments as by American law. But both in the United States and in Europe the tendency is not to restrain but to encourage combination and coöperation for the purpose of foreign commerce. This difference is of very great significance in studying the economic relations of nations. In Europe the nationals of the exporting nations, particularly Germany, suppressed competition among themselves and competed as a unit with foreign rivals.³⁴ This practice and in addition the growth of interest in America in export trade resulted in the enactment of a law declaring that the Sherman anti-trust law does not apply to persons or corporations engaged solely in export trade. The law reads in part:

That nothing contained in the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, shall be construed as declaring to be illegal an association entered into for the sole purpose of engaging in export trade and actually engaged solely in such export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association: *And provided further*, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially

lessens competition within the United States or otherwise restrains trade therein.

* * *

That the prohibition against "unfair methods of competition" and the remedies provided for enforcing said prohibition contained in the Act entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September twenty-sixth, nineteen hundred and fourteen, shall be construed as extending to unfair methods of competition used in export trade against competitors engaged in export trade, even though the acts constituting such unfair methods are done without the territorial jurisdiction of the United States.

Viewed from a purely nationalistic point of view it may seem proper that governments should aid their nationals in their overseas trading. The expenditure of public money in large amounts to promote export trade (not *foreign* trade which includes import as well as export trade) is seldom questioned. If the basis of international trade is to be competition between national groups, backed by their governments, any nation aspiring to success in international trade must throw its political power into the balance.

But this is not all that there is to the problem. People in the countries where the export corporations operate may object, as the American consumer has objected, to the control of rubber and nitrate by foreign combines. Also conflict may result in third countries between rival corporations of different nationalities.

Why is it that national sentiment today at the same time that it favors the restraint of combinations in domestic trade favors the removal of restraint in the export trade?

The producers' and the sellers' interests are very important factors

³⁴ Federal Trade Commission, *Coöperation in American Export Trade* (1916).

in shaping business practices and in influencing the policy of nations. These interests are manifest in the desire of financial groups to invest funds in the less economically developed parts of the world. It is manifest in the desire of agriculturalists who wish to sell their farm products in overseas markets. It is manifest among manufacturing groups who are producing highly competitive articles and competing with manufacturers of other nations for the sale of their products in third markets. It is even manifest, particularly in European countries, among laboring classes which realize that the industries in which they are employed are on an export basis and therefore their very livelihood depends upon keeping open foreign markets and maintaining the stability and purchasing power of those markets. Under such influences governments are persuaded to lend aid to promoting trade in foreign countries. If, however, this policy solves one problem it creates another.

The domestic aspect of combination falls outside this book. So also do combinations dealing in manufactured articles in international trade. There remains for consideration the organizations formed by producers of essential raw materials, particularly those which affect international relations.

FINANCIAL CONTROL OF RAW MATERIALS BY PRODUCERS

Financial control of a raw material by producers is comparatively easy when the whole or a large percentage of it is produced in one locality or is controlled by the capital of one nation. Under such conditions the government may aid the producers, as in the case of the Brazilian coffee valorization, or government may control raw material entirely, as in the case of the Nauru phosphates or Japanese camphor. In

fact the interests of producers and government cannot always be distinguished.

1. Plantation Rubber

In the summer of 1920 efforts were begun to obtain a reduction of output of *plantation rubber* throughout the Far East.⁹⁵ The Rubber Growers' Association, representing the British interests, took the lead in this matter and issued a circular in July, 1920. In September they asked that the reduction be made a "genuine 25 per cent." These earlier proposals were to become effective if a certain percentage (70 per cent at one time) of the producers could be brought into the agreement. It was hoped that the agreement could be made effective from November 1, 1920, to the end of 1921. It was announced that the necessary support had been received, but later reports show that the majority of the Dutch estates refused to coöperate. The plans never became binding.

2. Cinchona Bark

At the present time about 90 per cent of the world's supply of *cinchona bark*, the raw material for quinine, is obtained from Java. The remainder is produced chiefly on Government plantations in British India. The Javan planters and Dutch manufacturers of quinine have formed an organization known as the Kina Bureau, which allots supplies of cinchona bark and fixes the prices for quinine in all markets of the world.

This Bureau, with headquarters at Amsterdam, consists of three representatives of Javan planters, three of Dutch quinine manufacturers, and

⁹⁵ See pages 151 and 154. *The Crude Rubber Situation*, Dr. H. N. Whitford, Department of Commerce; *Operations of an American Rubber Company in Sumatra and the Malay Peninsula*, Mr. H. Stuart Hotchkiss, U. S. Rubber Company.

a chairman. The Bureau operates through an International Quinine Kartel made up of representatives of organizations controlling quinine manufacture in their respective countries. American manufacturers have not formally participated in the agreement because of the "anti-trust" laws, but it is believed that a satisfactory understanding exists. The German company manufacturing quinine dominated the Kartel before the war, but at its outbreak this control passed into the hands of the Dutch.

In regard to raw materials different consuming countries contract with Javan planters for their minimum requirements of cinchona bark at fixed prices. The original agreement was for five years and expired July 15, 1918. An Interallied Committee was formed during the war representing the United Kingdom, India, France, Italy and the United States. This Committee, on September 3, 1918, made an agreement with Dutch manufacturers as to allotments of cinchona bark and quinine sulphate for allied nations. This agreement was terminated September 1, 1919. It is not known whether American quinine companies have entered into a later agreement but the British companies, in a contract effective September 2, 1919, agreed not to sell any quinine sulphate at prices less than those fixed by the Kina Bureau at Amsterdam.

The planters of cinchona bark receive three fifths of the first 20 florins of net prices fixed by the Bureau, and one half of the excess. Manufacturers receive the remainder. Two of the plants represented on the Bureau are located in Holland and the other plant, which is the largest of its kind, is the Bandoeng factory in Java.⁸⁶

⁸⁶ U. S. Tariff Commission, *Tariff Information Survey*, FI-2, pp. 23 and 60.

3. Quebracho

The war centralized the world's production of *quebracho* extract in South America. The extract plants located in the forests of Argentina enjoy a large economy of freight and cheaper labor. Only a small portion of our domestic consumption of extract is manufactured in the United States from imported logs. Most of the domestic consumption of extracts is supplied by imports directly from South America.

The supply of logs is not controlled by a monopoly. A pool agreement, however, exists between the extract makers of Argentina and Paraguay for fixing both production and prices of extract. The bulk of the extract made in South America is produced by the La Forestal Land, Timber and Railway Company, which controls over six million acres of timber land, owns and operates railroads, barges, tugs, and extract plants located in or near the forests. It has an authorized capital of \$15,695,000. The controlling interest is held by the British. The other smaller producers are controlled by Argentine capital with the exception of one extract plant owned by American capital. A study of the wide price fluctuations clearly shows the effect of pool control. In case, however, the pool price is raised to an excessively high figure, substitution of *quebracho* extract by other tanning materials takes place.⁸⁷

4. Nitrogen

Nitrogen,⁸⁸ in some form, is necessary for the manufacture of fertilizers, explosives, dyes and drugs. Supplies of this important substance in chemi-

⁸⁷ U. S. Tariff Commission, *Tariff Information Survey*, A-8, p. 64.

⁸⁸ See pages 173 and 180. *Our Nitrogen Problem*, Dr. Harry A. Curtis, Department of Commerce; *Discussion of The Nitrate Situation*, Mr. C. M. Pepper.

cally combined form are obtained almost entirely from three sources:

1. *From natural deposits of sodium nitrate occurring only in Chile.*

2. *As a by-product (ammonium sulphate) in making coke and illuminating gas from coal.*

3. *By the "fixation" of the nitrogen of the air.*

The extent and life of the deposits of Chilean nitrate are not known definitely. Estimates of the reserves

the nitrogen of the atmosphere over every square mile of the earth amounts to about 20 million tons, or over thirty times the amount contained in the whole of the Chilean nitre and by-product ammonium sulphate produced per annum. The fixation of ammonium nitrogen has become in the last fifteen years a large industry, especially in Germany during the war.

The following table shows the relative sources of world supply of nitrogen in the years 1912 and 1920:

	1912	1920
	PER CENT OF TOTAL OUTPUT	PER CENT OF TOTAL PRODUCTIVE CAPACITY
Source of supply.....	....	....
Chile nitrate (assuming 95 per cent product)	57.5	30.2
By-product ammonium sulphate (24.5 per cent ammonium assumed)	38.0	26.6
Cyanamide (18 per cent N.)	3.1	20.9
Arc products (13 per cent N.)	1.4	2.5
Synthetic ammonium	nil	19.5
Total nitrogen fixation	4.5	43.1
Grand total	100.0	100.0

in these deposits vary greatly because of local variations in the thickness and richness of the deposits and in completeness of surveys. An official report made in 1913 to the Chilean Government by the Inspector-General of Nitrate Deposits concludes with the statement: "There is no fear of the Chilean nitrate deposits being exhausted for 200 years."

By-product ammonium sulphate constitutes a fairly large and important source of supply, which still offers opportunity for increase in the United States but not to any extent in European countries.

The production of useful nitrogen compounds from the atmosphere offers great possibilities. Nitrogen gas makes up four fifths by volume of the air and

This table shows the large increase in the fixation of nitrogen, and the decrease in the use of Chile nitrate which may be attributed to the fact that importation of this product by Germany is no longer necessary.

In 1919, the Chilean producers combined in an organization known as the Chilean Nitrate Producers' Association. All producers, with the exception of the German firms and the three American-owned concerns, joined the Association at the time of its organization. The German firms were later induced to join through a cash bonus which was paid by the other producers in the Association. The American-owned concerns have not joined the Association because of the American "anti-trust" laws, but work in accord

with the Association. At present the Association has control of production, sales and prices of at least 95 per cent of all sodium nitrate. Sales are made through a nitrate committee with headquarters in London. The price of sodium nitrate is controlled to a certain extent by competition from other nitrogenous materials, chiefly ammonium sulphate which may be used to replace sodium nitrate, par-

is derived from the sale of nitrate lands.

The annual requirements of the United States amount to between 500,000 and 600,000 tons of sodium nitrate or about half of the nitrate exported from Chile. The following table shows the imports of sodium nitrate into the United States from Chile and the export tax paid on such imports during 1912-1921:

	LONG TONS	CHILEAN EXPORT TAX (\$12.50 LONG TON)
Fiscal year:		
1912.....	481,786	\$6,022,325
1913.....	586,314	7,328,925
1914.....	554,047	6,925,588
1915.....	575,371	7,192,138
1916.....	1,072,833	13,410,413
1917.....	1,261,933	15,774,163
Calendar year:		
1918.....	1,847,660	23,095,750
1919.....	407,559	5,094,488
1920.....	1,321,892	16,523,650
1921.....	379,173	4,739,663
		\$106,107,103

ticularly in mixed fertilizer, but for purposes of top dressing sodium nitrate is preferred.

In 1921 about 51 per cent of the production was controlled by Chilean interests; 34 per cent, by British; 5 per cent, by Jugoslavian; 4 per cent, by German, and 2.5 per cent, by American interests, which sell at prices fixed by the Association. It is apparent that the control of the world's trade in nitrate is effected by a combination of British and Chilean interests.

The Chilean Government levies an export tax of 56 cents per 100 pounds on all sodium nitrate exported. This tax normally produces a revenue of \$32,000,000 or about one half the total revenue of Chile. Additional income

It can be seen from the table above that during the past ten years the United States—and chiefly the farmers—have paid the Chilean Government a tax in excess of \$106,000,000, or an average of \$10,000,000 annually. With the development of nitrogen fixation in Germany, and since nitrogen fixation has not developed to any extent in the United States, this country now becomes the largest consumer in the world of Chilean nitrate.

Germany developed her nitrogen fixation industry during the war when the Chilean nitrates were not available, so that she is no longer dependent on Chilean nitrate. Most, if not all, of the production is controlled by the *Interessen Gemeinschaft*, or the dye Kartel. While not directly aided by

the German Government, the latter is friendly in its attitude towards the Kartel.

Norway because of her large hydro-electrical developments has the cheapest power in the world, and has developed an extensive nitrogen fixation industry, without, so far as known, any Government aid. It is reported that French capital controls the more important ventures.

Switzerland and France also have nitrogen fixation industries of lesser importance. It has been reported that the *Badisch Anilin und Soda-fabrik* sold the rights for the fixation of nitrogen in France by the Haber ammonia process to French interests.

INTERNATIONAL COMBINES

The same motives actuate international as domestic combines. They are after profits. They practice restriction of output, price fixing, and the division of markets. They also have been guilty of unfair methods of competition against competitors. The Federal Trade Commission says:⁸⁹

In addition to international kartels and syndicates similar in character to those having a purely national scope, there exist a number of international organizations which connect, through stock interownership, many concerns which formerly competed and which still operate as legally independent companies, although, in point of fact, the policies of all are determined by one and the same group of men, with the result that there is a unity of action inside the organization.

International combinations are unregulated except as the different national laws may impose some restraint. In the *American Tobacco Company v. United States*,⁹⁰ for example, the decree

directed, among other things, that covenants between the Imperial Tobacco Company, the American Tobacco Company, and the American Cigar Company, by which the former and certain of its directors agreed not to engage in the manufacture or sale of tobacco in the United States, and the two American companies and certain of their directors agreed not to engage in said business in Great Britain or Ireland, and all three agreed not to engage in said business in countries other than Great Britain, Ireland, and the United States, be rescinded, except such as related wholly to business in foreign countries or such as were covenants exclusively between foreign corporations and related wholly to business in or between foreign countries.

5. Chromite

There have been many attempts to control the *chromite* supplies of the world. The most important of these is the Paris syndicate formed in 1912, which acquired control of the New Caledonian deposits and later of the producing mines in Rhodesia. This syndicate did for a time control the chromite supply, but this control was broken by the outbreak of the war. While it still controls these important deposits, it is unlikely that any future monopoly will exist because of the large number of extensive deposits that were opened up during the war.

6. Monazite Sand

Before 1914 the control of the Brazilian *monazite sand* deposits was in the hands of the four largest German manufacturers of incandescent gas mantles. Through an agreement with the Brazilian Government they had a monopoly on the deposits of the states of Bahia and Espirito Santo. The Brazilian Government also levied an export tax on monazite sand. In 1909, large deposits of monazite sand were discovered in India. These immediately came under the control of the German firms. But the European

⁸⁹ Federal Trade Commission, *Coöperation in American Export Trade* (1916), Vol. 1, p. 347.

⁹⁰ Department of Commerce, *Trust Laws and Unfair Competition* (1916), p. 83.

war effectually broke up the German monopoly. The Indian mines have now been taken over by British subjects and the world's supply is now dominated jointly by French, Brazilian and British interests, with a quasi-supervision by the respective governments.

7. Diamonds

An interesting case of effective monopoly controlling the distribution of a product in the international market is the *diamond* monopoly in South Africa. Diamonds are obtained from India, Brazil and the Belgian Congo, but in recent years the Kimberly mines of South Africa have supplied over 95 per cent of the total diamond output of the world. By far the largest of the diamond mining companies, and the one virtually controlling the field is the DeBeers Consolidated Mines, Ltd. This company was formed in 1888 and was a consolidation of all of the mines in that district. Later, this company acquired a controlling interest in the Premier (Transvaal) Diamond Mining Company, the second largest producer. The Anglo-American (in which J. P. Morgan Company is interested) has taken over all the German mines in the Southwest Protectorate under the name of the Consolidated Diamond Mines of Southwest Africa, Ltd. Production in the Belgian Congo is controlled by the *Forminière* (*Société Internationale Forestière et Minière*) in which Thomas F. Ryan and the Guggenheims are interested.

The policy of restricted production by the big mines has been adopted with marked success since the early amalgamations. The outbreak of the war necessitated the closing down of many of the mines so that production practically ceased and allowed the existing stocks to be cleared. Since the early part of 1916 the mines have been worked on a limited scale, and

with the strong demand for precious gems, the producers have been able to raise prices considerably and keep the market hungry for gems.

During 1919 a new agreement was talked of with a view towards controlling the market still more closely. The result of prolonged negotiations between four groups of producers, the Union Government of South Africa and representatives from Southwest Africa was an agreement embodying the following points:

1. It was decided that the amount of diamonds supplied to the world market should be on the basis of the actual sales in the preceding three months. The proportions which each of the four producers should supply are

DeBeers.....	51%
Premier.....	18%
Jagersfontein.....	10%
Southwest Protectorate.....	21%

2. A London syndicate was to be formed which was to act, not merely as agents for the diamond producers, but as a purchaser of all diamonds in South Africa. All diamonds are sold cash against delivery in South Africa, the syndicate to bear all losses.

3. In regard to price. The syndicate must pay 5 per cent less than the average price obtained during the preceding three months, and any profit made on the actual sale of the diamonds over the above price would be divided between the syndicate and the producers. This means that every three months a basic price is set, and 5 per cent above that price would go to the syndicate and after that the proceeds would be divided equally between the producers and the syndicate.

4. The contract is for five years with a proviso that after twelve months any of the producers may give twelve months notice of his intention of withdrawing from the agreement. This arrangement would, it was hoped, give stability to the market and enable them more closely to regulate the supply and demand and maintain a price.

Congo diamonds are not handled through this "pool." The cost of

mining them is lower and, of course, they can be sold cheaper than those of the syndicate. The output is as yet small, in comparison with that of the pool, and the Congo producers are not able to flood the market with cheap gems, but it has proved, nevertheless, during the last two years a disturbing influence in the diamond market. After the fields are developed in the Belgian Congo, there can be no doubt but that in the future they will prove even more embarrassing to the syndicate. Negotiations are in progress and it is not unlikely that in due course of time the output of the Congo mines will come under the control of the syndicate.

The Anglo-American Corporation (largely American capital) controls the main production of the Southwest African Protectorate which is allotted 21 per cent of the stones sold; also the stones from British Guiana and from Brazil with perhaps the exception of one insignificant company.

It is of interest to note that diamonds were discovered in the United States near Murfreesboro, Arkansas, in 1906. The largest stone found here so far weighed 20.25 carats. The production to date has been about 6,000 stones. In 1922, mechanical methods of working were installed and vigorous development of the mines undertaken.

8. Sulphur

The difficulties that beset the *sulphur industry* of Sicily after the World War reached a crisis in 1922. These were due largely to competition from American sulphur, which, equal to or superior in quality to Sicilian sulphur and produced more cheaply, undersold the Sicilian product and won the latter's markets. As a result, Sicilian operators found it impossible to dispose of their output and by the spring of 1922 a large surplus stock existed in Sicily.

Appeals for assistance were made by

Sicilian producers to the Italian Government without success. In order to reduce production costs, wage reductions were proposed to the miners, who refused them and threatened occupation of the mines and acts of sabotage. This all resulted in many mines being closed.

The Italian Government then attempted to ameliorate the situation and proposed (1) stabilizing and systematizing the financial aspect of the crisis; (2) liquidating the large surplus stock on hand; (3) effecting a rational and scientific organization of production and disposal; and (4) *seeking an accord with American producers*.

On March 14, 1923, the proposed accord with American sulphur interests became a fact. On that date an agreement was signed at Rome by American and Italian producers. The essential points of the agreements are the fixing of the prices and the assignments of various districts to each of the contracting parties.

A summary of the more important stipulations follows:

1. Prices will be fixed from time to time in accordance with special conditions existing in the different countries, so as to gradually reach the pre-war level in so far as that is possible.

2. There will be an increase on an average of one dollar per ton on the figures temporarily fixed with the American producers in October, 1922.

3. The American market will be reserved to the American producers, and the Italian market to the Italians. The remainder of the world market shall be divided between America and Sicily according to a fixed proportion, with the proviso that Sicilian producers shall have the right to sell up to 65,000 tons for the manufacture of sulphuric acid in any country.

4. The exportation of sulphur shall be regulated as far as practicable to the advantage of each of the contracting parties, with special regard to the geographical position of producer and consumer.

5. The exportation of worked sulphur shall remain entirely free for any destination.

6. The agreement is to remain in force until September 30, 1926, and may be extended. Both parties have the right to cancel the agreement before the date prescribed by giving not less than six months' notice of such intention to the other party.

7. The organization of a central control office in London composed of representatives of both parties shall be provided for.

8. Any dispute that may arise shall be submitted to arbitration before a committee which shall sit in London and which shall be composed of a representative of each of the contracting parties and a third member selected by the two representatives or before the Chamber of Commerce of Rome.

Under the new agreements the Sicilian Sulphur Consorzio, as before, has the sole right of handling sulphur on behalf of the mine owners, and of negotiating directly with prospective consumers in all countries that have been allotted to it.

By a decree of the Italian Ministry of Industry, Commerce and Labor, published August, 1920, maximum selling prices on different grades of crude and refined Sicilian sulphur are established, to take effect retroactively

from May 1, 1920. To each of the prices there is added a charge of 5 centimes per 100 kilos, or 6.5 lira per metric ton, as a contribution toward the support of the Sicilian sulphur consortium, of which all producers are obliged to be members.

It has been reported that Spain was considering levying a duty upon imports of sulphur in order to bolster its decadent pyrites industry. It is difficult to see how this measure would be of much assistance, as there is practically no chemical industry in Spain and the pyrites industry of that country is dependent upon the export business.

A scarcity of pyrites in the United States during and after the war has resulted in an almost country-wide use of sulphur, instead of pyrites, in the manufacture of sulphuric acid. The old and expensive pyrites burners have been discarded for less expensive and more efficient sulphur burners. Because of the many advantages which sulphur possesses over pyrites at a comparable price, it is unlikely that pyrites can again establish itself as an important raw material for sulphuric acid making in the United States.

IMPORTS AND EXPORTS FOR THE UNITED STATES OF SULPHUR OR BRIMSTONE, CRUDE

	IMPORTS FOR CONSUMPTION		EXPORTS	
	Long Tons	Value	Long Tons	Value
Fiscal year:				
1910.....	31,233	\$537,778	45,595	\$864,808
1911.....	23,380	409,990	17,269	326,735
1912.....	25,545	453,754	41,269	784,349
1913.....	19,257	374,024	73,861	1,353,310
1914.....	20,236	346,875	110,022	2,018,724
1915.....	26,302	442,975	48,391	885,756
1916.....	22,539	372,599	68,400	1,314,290
1917.....	11,819	205,980	177,548	3,595,512
1918.....	282	8,677	140,525	3,842,904
Calendar year:				
1918.....	55	1,692	131,092	3,626,638
1919.....	79	1,997	224,712	6,325,552
1920.....	46	1,722	477,450	8,994,350
1921.....	4	226	285,762	4,524,768
1922.....	130	4,259	485,706	7,095,964

DOMESTIC PRODUCTION OF CRUDE
SULPHUR IN UNITED STATES

Year	Long Tons
1917.....	1,134,412
1918.....	1,353,525
1919.....	1,190,575
1920.....	1,255,249
1921.....	1,879,150

9. Steel

The most important combinations of producers from both the economic and political points of view are those controlling the production and distribution of coal, iron ore, steel and petroleum. In these cases, as in many others, control is usually exercised either by or in conjunction with large banking and financial houses.

The significance of the steel industry, especially in international relations, is sometimes overlooked. Dr. C. K. Leith has discussed the world iron and steel situation in its bearing on the French occupation of the Ruhr.⁹¹ In conclusion, he says:

Out of the unprecedented growth of an industry based on natural resources comes the present situation in the Ruhr. It may be viewed in the light of the following considerations: (1) The iron and steel industry is the largest single factor in modern industrial development. (2) Nature has decreed concentration of this industry in three geographic units—the United States, England and Franco-Germany, which are the only ones with influence largely transcending national boundaries. (3) There are no others which promise to rival them for a considerable time to come. (4) The growth of these units of power has been more or less independent of politics, and probably in the future they will not be materially curbed by political considerations. (5) They will carry into political supremacy the nations possessing them. (6) Because of the competition of these three units for markets and raw materials international difficulties have arisen, and will continue to arise in the future. (7)

⁹¹ *Foreign Affairs*, June 15, 1923, pp. 150-151.

Further international difficulties will be brought about by political pressure of other countries which may refuse readily to meet these demands.

Among the several contributory factors to the present Ruhr situation one begins to appear as the probable dominant factor of the future—the struggle for the control of the iron and steel industry of Western Europe. The recent growth of this industry has created an industrial problem for which there is no historical precedent. The industry cannot be divided geographically into self-sustaining and effective units; its physical unity favors unit political control. Partnership control, under the circumstances, has become difficult, if not impossible; it would be a condition of highly unstable equilibrium. Unit political control confers supremacy in Europe both in war and peace, suggesting that the fight for such control will ultimately be one to a finish, even though it may be temporarily suspended. The failure of France to secure immediate reparation is a small matter compared with the ultimate issues at stake.

10. Oil

Although there are a number of important oil companies operating in international trade, the two leading companies are the Standard Oil Company and the Royal Dutch-Shell Company. The former is known to American readers. The latter is a holding company controlling the Royal Dutch Company and the Shell Transportation and Trading Company. The Federal Trade Commission has this to say concerning the Royal Dutch-Shell group:⁹²

At the present time the Royal Dutch-Shell group, in addition to its possessions in the Dutch East Indies, owns exclusive or important petroleum properties in Sarawak (British Borneo), Rumania, Egypt, Venezuela, Trinidad, Mexico and the United States; and it controls 5 refineries in the United States with a daily capacity of

⁹² Report of the Federal Trade Commission on Foreign Ownership in the Petroleum Industry, Feb. 12, 1923. Summary, XII-XIII.

65,000 barrels, 4 in Mexico with a daily capacity of 155,000 barrels, 1 in Venezuela, 1 in Trinidad, 1 in Curacao, 1 in Suez, and others in Europe and the Orient, together with compression plants, storage facilities, and other equipment in different parts of the world. It has 752 miles of trunk pipe lines in the United States and about 240 miles of pipe line in Mexico. It also owns or controls about 1,144,000 tons of tankers, barges and tugboats.

INTERNATIONAL REGULATION NECESSARY

Commerce and finance between nations should be subject to regulation as is domestic commerce and finance. The national remedy, however, is usually ineffective. The United States can declare illegal under certain conditions a combination, conspiracy, trust, agreement, or contract by persons engaged in the import trade, but when the product controlled is an essential like rubber or nitrates produced wholly outside the United States, the law is of little or no value. A desire to be free from the control of international combinations often leads single countries into not only inadequate measures, but into violent attempts to change the situation, *e.g.*, to create new sources of supply.

The problem is international and requires an international remedy. Relations between nations will not be adjusted adequately until the large economic issues are faced and an adequate remedy devised. The political side of international competition has been unduly emphasized. In the case of financial control of raw materials by producers, principles of international law should be agreed upon limiting the operations of large combinations both in their relation to consumers and to their competitors. The consumers of an essential raw material in one country should be protected from price gouging and inferior quality of product prac-

ticed by a combination in another country. International trade should also be free from all the varied forms of unfair methods of competition which are now offenses against public law in all advanced industrial countries.

THE PUBLIC INTEREST IN NECESSARY RAW MATERIALS

These international combinations of wealth often present something more than a mere problem of the regulation of business practices. When large organizations of producers control raw materials or essential manufactures vitally necessary to a nation's security, they are certain to and should be considered as having a political significance. They are not private concerns, but should be subject to public regulation. In the modern world, iron, coal and steel are factors in any program of national defense. Petroleum is of national and international importance. In such and similar cases a policy of *laissez faire* is fatal.

A further reason for regulation in the interests of world peace is the fact that large corporations are at times used by nations to further imperialistic aims. Governments may choose to operate not directly but through nominally private concerns. The methods of "economic penetration" are familiar in the modern economic world. In many cases it is impossible to separate the commercial interest from the government interest in the exploitation of raw materials in economically undeveloped countries. It may be said of tropical Africa, in general, that it has been exploited by great trading companies which have been given by their respective governments power which is practically sovereign within the limits of their concession. This is still true of the great companies in Mozambique, in Rhodesia (South

African Company), and in Nigeria. A classical example of the operation of trading companies which were used by the sovereign to evade international open door agreements, are the trading companies which, under Leopold of Belgium, exploited the resources of the Congo.⁹³ No one would seriously

protest against the statement that the company which built the Bagdad railroad and was controlled by German capital had a political significance in Germany's plan of imperialistic expansion,⁹⁴ nor would the political significance of the South Manchurian Railway Company be denied.

CHAPTER IX

FINANCIAL CONTROL OF RAW MATERIALS BY BUYERS AND THE DEVELOPMENT OF NEW SOURCES OF SUPPLY

One check on combinations of producers has been combinations of consumers and buyers.

COÖPERATION BY CONSUMERS

Coöperative buying has⁹⁵ been highly successful in the case of the coöperative wholesale societies of Great Britain. The Scottish Coöperative Wholesale Society, Ltd., for example, not only engages in domestic buying and manufacturing activities, but it has a large wheat-buying depot at Winnipeg, Canada. The Coöperative Wholesale Society, Ltd., is still more extensive in its activities. It controls manufacturing, warehousing and banking agencies, and purchasing depots. It maintains foreign and colonial buying agencies. It operates, with the Scottish society, ten estates in Ceylon and India and raises its own coconuts in Africa.⁹⁶ In Poland, a great coöpera-

tive organization has received aid from the Government.⁹⁷

Organized buying representing large consuming interests has also been done by governments. A number of European governments maintain fiscal monopolies of such products as tobacco, matches and salt. In these cases, the purchases of the government are made as a unit and the effect is the same as that resulting from large combinations of private buyers.

COÖPERATION BY BUYERS

The buying interest represented by the coöperative societies is the buying interest of the ultimate consumer. Consuming industries have also organized on certain occasions for the purpose of buying their raw materials. In these cases the consumer consists

⁹³ U. S. Tariff Commission, *Colonial Tariff Report*, p. 95.

⁹⁴ See page 184. *The Importance of the Near East in Problems of Raw Materials and Foodstuffs*, Dr. Edward M. Earle. See also Dr. Edward M. Earle, *Turkey, The Great Powers and the Bagdad Railway*.

⁹⁵ See page 257. *Factors Limiting the Expansion of the Human Race*. Dr. Robert J. McFall, Massachusetts Agricultural College.

⁹⁶ Federal Trade Commission, *Report on Co-operation in American Export Trade*, Part I, p. 356.

⁹⁷ The following is from *Commerce Reports* (U. S.), March 13, 1922: In 1919 and again in 1920 the Polish Government guaranteed the foreign purchases of the Agricultural Syndicate of Warsaw up to an amount not to exceed £2,000,000. This syndicate is made up of 21 agricultural groups in the territory of former Russian Poland, and in addition there is a Farmers' Central, so called, combining 70 farmers' organizations, smaller than the groups just mentioned. These and other smaller organizations are allied with the Agricultural Syndicate, and the aim of all these agricultural societies is to supply their members with everything necessary to assist production.

of organized business interests, whose object is to purchase raw materials or semi-finished products for the purpose of further manufacture. The German Metal Buying Combine is an excellent example of this practice.⁹⁸

This combine obtained control of Australian concentrates and eliminated practically all competition both in the purchase of the raw materials and in the distribution of the ore among the various European smelters.

At the time of the outbreak of the war, German interests lost control of the situation in Australia, and steps were taken to shift the buying control into British hands. A British report published in 1918, says:⁹⁹

In the case of spelter, we are informed that negotiations between the British and Australian Governments have resulted in an agreement whereby the former undertakes to purchase for a period of 10 years the output of zinc produced in Australia from Australian ores, up to a maximum of 45,000 tons per annum; and also a minimum of 100,000 tons per annum of Australian

concentrates, with an option of taking a further 50,000 tons per annum. For the purpose of developing spelter production in Australia, His Majesty's Government has undertaken to make certain advances to the Australian Government, repayable within a prescribed period. Provision is being made for the treatment in the United Kingdom by British-controlled companies of the concentrates so purchased, by the erection of two large zinc-smelting works—adjoining Government explosive works—each for the treatment of a minimum quantity of concentrates, in the one case entirely Australian and in the other Burmese and Australian, His Majesty's Government making advances to meet the cost of erection of the works at a minimum rate of interest and repayable within a limited term of years. It will be necessary to provide for the right of His Majesty's Government to take over the works should necessity arise, and for British mine owners to be given reasonable opportunity to dispose to the companies of such ores as they can produce.

With reference to copper, the Alien Property Custodian's Report referred to above, says:¹⁰⁰

Outside of the United States and especially in Australia the Germans did largely control the copper output. *The Metallgesellschaft* through its Australian Metal Company at one time exercised a decided influence in the copper production of Australia. *Aron Hirsch & Sohn*, however, later became the most important copper interest in Australia. This firm had control, through refining and purchasing contracts, of the copper production of the three largest copper producers in Australia, to wit, Mount Morgan Gold Mining Company (Ltd.), the Wallaroo Moonta Mining & Smelting Company, and the Mount Lyell Mining Company, having a combined total output of about 15,000 tons as against 45,000 tons which was Australia's total annual output of copper.

But though Germany has never con-

⁹⁸ Federal Trade Commission, *Coöperation in American Export Trade*, Vol. 1, p. 365. See also the Alien Property Custodian's Report (1919), p. 65, from which the following is taken. At the outbreak of the European war the zinc industry of the whole world, save only the United States (as to which comment will be made separately), was completely in the control of the German metal triumvirate—the *Metallgesellschaft*, *Aron Hirsch & Sohn*, and *Beer, Sondheim & Company*. The control of the purchase of ores, principally Australian ores, was exercised by means of joint accounts among the three German firms, while the control of the smelters and the zinc spelter which they produced was exercised in Germany by the German Zinc Syndicate, and in the other European countries by an International Zinc Syndicate. But *Metallgesellschaft*—and its English offshoot *Henry R. Merton & Company (Ltd.)*—*Aron Hirsch & Sohn*, and *Beer, Sondheim & Company* were in absolute control of all of these syndicates.

⁹⁹ Interim Report on Certain Essential Industries, C. d. 9032, p. 3.

¹⁰⁰ Alien Property Custodian's Report (1919), p. 69.

trolled the output of the world's copper, she has exercised a powerful influence over the price of the metal. This was due to two causes: (1) Because Germany was a large consumer; (2) on account of the activities of the German metal triumvirate.

GERMAN NATIONALS COÖPERATE IN PURCHASING

It was inevitable that coöperative buying would develop in Germany. Germany is poor in practically all the raw materials essential for the development of great industries. In addition, the scientific knowledge and business ability of her citizens developed new processes and new methods of utilizing raw materials, which represented distinct advances in industry. As she expanded industrially, she became more and more dependent upon sources of raw material outside her borders. If the competition for raw materials was to continue, her only hope of industrial success was to control sources of new raw materials in foreign countries. There was constantly present in the minds of her industrial leaders and statesmen the fear of being excluded from sources of raw materials abroad over which other countries held political control. Germany's control extended not only to metals but also to other products. A little over 50 per cent of the hides and skins from India were shipped to Germany for tanning and Germany also developed the utilization of, and controlled the trade in, the palm kernels of West Africa. These controls were developed through exceptional shipping facilities and financial control of the respective trades.

BRITISH NATIONALS CONTROL GUTTA PERCHA

German nationals, however, were not by any means alone in these business practices. British nationals, al-

ways interested because of their far-flung empire in communications,¹⁰¹ developed a control of gutta percha, which is the only raw material which withstands successfully the destructive influence of the waters of the ocean and is, therefore, an essential raw material for making deep-sea cables. Hence it is an essential material in the extension and control of international communications.

Gutta percha is a jungle product very similar to rubber. The trees are found in a limited and relatively small area including the Malay Peninsula, the Philippines, the Rhio Archipelago, Banka, Borneo, Sumatra, New Guinea and other small islands of the Dutch Archipelago.

The supply of gutta percha is limited to a relatively small area and the quantity within that area is not large. Besides, the wasteful methods used by the natives in gathering the product have greatly reduced the original amounts. It is plainly apparent that the total supply is decreasing. There are now no gutta percha producing trees near any of the villages, streams and rivers throughout the region, and the natives collecting the product must travel for many miles in the jungle before reaching the producing districts. Just how much gutta is left in the unexplored and remote parts of the islands is unknown.

The type of native that gathers gutta percha never works on the plantations. They may be drawn away from the collection of gutta percha, damir, copal, deer skins, rattan, or other jungle products, but they are jungle people and would not thrive on the estates. Another factor in limiting the supply of gutta percha has

¹⁰¹ See pages 248 and 253. *The Effect of Cable and Radio Control on News and Commerce*, Admiral W. L. Rodgers, U. S. Navy; *Air as a Raw Material*, Mr. Walter S. Rogers.

been the clearing up of vast areas of land for the planting of rubber, coffee and tea, which has materially reduced available sources of supply.

The principal demand for gutta percha is for the insulation of submarine cables. In the past this demand has been very spasmodic, there being times when very little construction or repair work is under way and the demand abroad drops to practically nothing. At these times the prices go to a point where the holding of stocks for the inevitable rise is attractive to speculators.

Considerable extension of the submarine cable net means the proportionally greater use of gutta percha. At the present time the length of all submarine cables is 439,047 kilometers or 236,840 miles. For one mile of cable about 68.5 pounds of gutta percha of the finest quality are required. A 15- to 20-year-old tree when filled will yield less than a pound of gutta. Thus for insulating the 236,840 miles of cable it would be necessary, at a moderate estimate, to fell at least twenty-seven million gutta percha trees. When it is known that the average life of submarine cable is only about forty years, the potential demand merely for replacing the existing cables can easily be shown to call for the product of some 675,000 trees annually.

Gutta percha is obtained by tapping the trees in the same manner that rubber is produced. But this method is too troublesome and slow for the natives who generally cut the tree down, remove narrow strips of the bark and collect the milky juice that flows into the wound. This process does not actually destroy the life of the tree as new shoots will in time grow out from the stump. It does, however, effectually cut off the future supply for many years. Gutta percha trees grow,

as a rule, at wide intervals in the virgin forests and generally, because the natives collected from and destroyed the trees nearer at hand, are at great distance from the villages. The forest lands are not under private ownership so that the native collectors, since they are not under supervision and because the yield by the tapping process is so small, take the method that is the least troublesome and which also gives the greatest yield, that of felling the tree.

The latex is always collected by the natives, brought down by them from the jungle to the various villages and there bartered to the Chinese for rice, tapioca, salt and other goods. When the gutta percha has been collected, it is put into a pot of boiling hot water that it may be kneaded and pressed into shape. The crude commercial material is purified by grinding in hot water, in order that chips, bark and sand may be removed. The plastic mass is then rolled into thin sheets or formed into threads which are rolled into balls and pressed.

The part played by the Chinese in the production of gutta percha is of great importance. They take the long risks in building up the trade, in establishing small steamer connections and in sending out great fleets of junks to all the little native ports where some of their number are keeping the shops to which much of the produce originally comes. These Chinese are industrious money makers and understand such business as comes within their vision better than most races.

The collection of gutta percha is carried on with considerable risk both from the financial and human side. The buyers traveling from one island to another trade with the natives for their gutta, giving them rice and other commodities in return, and often financing the smaller dealers for large

sums during the months before the product of the forest begins to come in. Unless the buyer is assured of a fixed price, his profit may be entirely wiped out by the turns of the market months after, since it sometimes requires from four to six months for the natives to go and return with the product. The fact that the demand for the product has been spasmodic in the past has been one of the causes of low production.

The whole foundation of the gutta percha industry is entirely in the hands of these Chinese traders. The system starts with the smallest of dealers scattered throughout the territory in which gutta is found. These men penetrate the jungle. The "diaks" or "diak Malaya mixtures" who collect the gutta are regular jungle dwellers, often being head hunters. They never go to the coast, but deliver their product to Malays or Chinese traders along the rivers. Their existence is a precarious one naturally. These men bring the gutta percha to the small seaports where they trade with other dealers who travel in junks from port to port, working independently and often in keen competition among themselves. They in turn pass the product along to the secondary markets from which it goes in a more or less direct route to Singapore. Often the product passes through as many as six dealers before reaching the big agents at Singapore.

Singapore is the international center for trade in gutta percha. It is geographically situated at a point most convenient to all regions of production of this and the other minor or native products of the East Indies and has direct communication with the markets of the world. Besides, the Chinese merchants of Singapore, who are the real dealers in gutta, because they have had longer contact with the outside

world through the British commercial organizations, know more about foreign requirements than the Chinese of the Dutch cities of the region do. The Singapore merchants have facilities for reworking the gutta, mixing the poorer grades with the good and thus are able to get a better price for all. This fact is very important and tends to force the small dealers to trade there in as much as it comes to them in very irregular quantities. The preparing of the many grades for shipment is another point in which the Singapore dealers excel. Then, too, and perhaps most important of all, it is in Singapore that the big buyers are located. The market is very spasmodic and sometimes months pass without any demand, and local dealers must carry their stocks. The irregularity of the European demand necessarily involves a considerable element of speculation.

The gutta percha market at Singapore is controlled by England which means control of international trade in this product. The control has more than a commercial significance or a commercial motive. The maintenance of deep-sea cables is regarded by the British as vital to empire unity and coöperation, and gutta percha is essential in the production and repair of these cables.

Statistics show that only $2\frac{1}{2}$ per cent of the total weight of gutta percha produced comes from British owned or controlled territory. The bulk of it is produced in the Dutch East Indies and a small quantity in the Philippines and Siamese States. And yet England controls this key product commercially.

The British merchants have taken advantage of their superior position at Singapore and have built up a trading system second to none in the Orient. While the part played by the Chinese must not be overlooked, it is the British merchants who have guided

the Chinese through their control of exports and imports and who have built up an organization that holds sway over the many key products grown or produced in the Dutch East Indies, as well as in the British possessions.

The big British houses doing most of the export business of Singapore have obtained their dominating position through utilization of the Chinese collection system. These British houses have very close connections with the Chinese, but their real strength is based on the British monopoly of the demand channels of distribution to the world. This position as distributor of the products of the East Indies is combined with the stronghold that they have as importers. The Chinese merchants, while very wealthy, often carry a large part of their business on credit and it is through this that they are controlled. They seldom confine their operations to one thing and their speculative tendencies often place them in a position where they may need the assistance of the British houses in any emergency.

Aside from these fundamental factors, there are two others which pertain to the gutta industry alone and which are of great importance in the maintenance of British control of the gutta percha situation. They have in the first place a market for gutta. The British manufacturers of submarine cable are pretty well organized and have given much consideration to the future supply of gutta percha. Also it is important to know that within a short time there will be considerable repairing and replacement of such cables as are relatively old, as well as laying of new ones.

They have in the second place a buying organization. The British commercial machine has been in control so

long that the big Chinese merchants in Singapore are dependent on it, as well as the dealers throughout the islands, inasmuch as the product in its primitive state must come to Singapore for refining and grading.

Gutta percha is a product that has one big use, namely that of an insulator in the manufacture of submarine cable. In this field there are relatively few competitors. The most important purchaser of gutta is the Telegraph Construction & Maintenance Company, Ltd., of London, who purchase gutta percha through their Singapore agents, Paterson, Simons & Company, Ltd. Messrs. Siemens & Company, also of London, are large purchasers, who buy through their special representatives in Singapore. Other purchasers are the *Norddeutsche Seekabelwerke* at Nordenham, Germany, who have used as agents Messrs. Hattenbach & Company, Messrs. Jaeger & Company and Brinkman & Company (Nordenham has recently received an order for 2,700 miles of cable from the Dutch who are to supply the raw material); F. H. Henderson of New York represented by Henderson, Kuhleman & Company of Singapore; Brinkman & Sons who were the former agents of the German concern and are the possible future agents of a Japanese firm who are about to enter the field.

JAPAN'S POLICIES TOWARD THE RESOURCES OF ASIA

Japan's position¹⁰² with reference to raw materials is not unlike that of Germany. She must depend on outside sources for most of the essential raw materials which form the basis of

¹⁰² MacMurray, John Van Antwerp: *Treaties and Agreements with and concerning China*, Vol. I, Manchu Period (1894-1911); Vol. II, Republican Period (1912-1919). Bau, Mingchien Joshua: *The Foreign Relations of China*; Willoughby, Westel W.: *Foreign Rights and Interests in China*.

her growing industrial life. The buying interest, therefore, is strong and influences are constantly being brought to bear in favor of controlling sources of essential raw materials beyond the political boundaries of Japan. This sort of control in most cases has a political aspect. In the case of Germany, the desire to control raw materials was inseparable from the desire of Germany to extend her political influence throughout the world. The political motive is also a factor in the British desire to control the gutta percha supply. In the case of Japan, her efforts to control the sources of essential raw materials on the continent of Asia are distinctly political.

No effort will be made to discuss Japan's policy toward the resources of the Asiatic mainland. In general, her growing industries and her Government have sought to supplement their poverty of many raw materials by control of resources in China and important political as well as economic results have followed. One example—the Hangyehping Iron Works—is sufficient to make the point clear.

The political strength of Japan depends, if national rivalry is to continue, upon the development of an iron and steel industry. But Japan has a relatively limited supply of iron and of coking coal within her territorial limits. The Japanese commercially valuable iron ore reserves amount to no more than the average annual production of iron ore in the United States. Hence, the Japanese steel industry is dependent largely on importations of not only coking coal but of iron ore and pig iron. A large percentage of its supply comes down the Yangtze River from Hankow.

Says Professor Willoughby:¹⁰³

¹⁰³ Willoughby, W. W.: *Foreign Rights and Interests in China*, p. 414.

It is known that one of the chief reasons why Japan has been especially anxious to obtain influence in China is in order that it may have access to and control of the natural resources of China, and especially of her coal and iron—resources which Japan has in very insufficient quantities within her own borders, and for which, with her developing industrialization, she has a constantly increasing need. In Manchuria she has obtained control of important mines, especially of the Fushun mines, near Mukden, and in Shantung she also has obtained control of most important mining rights at Fangtze and Hungshan and other places.

The Hangyehping Iron & Steel Company is located at Hanyang near Hankow. Its principal ore deposits are at Tayeh some distance to the southeast. Its coal deposits are at Pinghsiang. The Company borrowed large sums from Japanese capitalists. The Japanese Government's interest in this iron and steel company appeared dramatically in the Twenty-One Demands of 1915. Japan made the following demands:

Article 1. The two Contracting Parties mutually agree that when the opportune moment arrives the Hangyehping Company shall be made a joint concern of the two nations and they further agree that without the previous consent of Japan, China shall not by her own act dispose of the rights and property of whatsoever nature of the said Company nor cause the said Company to dispose freely of the same.

Article 2. The Chinese Government agrees that all mines in the neighborhood of those owned by the Hangyehping Company shall not be permitted, without the consent of the said Company, to be worked by other persons outside of the said Company; and further agrees that if it is desired to carry out any undertaking which, it is apprehended, may directly or indirectly affect the interests of the said Company, the consent of the said Company shall first be obtained.¹⁰⁴

¹⁰⁴ Willoughby, W. W.: *Foreign Rights and Interests in China*, pp. 415-17.

In the final revision of Group III the provision reads:

The relations between Japan and the Hangyehping Company being very intimate, if the interested party of the said Company comes to an agreement with the Japanese capitalists for coöperation, the Chinese Government shall forthwith give its consent thereto. The Chinese Government further agrees that, without the consent of the Japanese capitalists, China will not convert the Company into a state enterprise, nor confiscate it, nor cause it to borrow and use foreign capital other than Japanese.

China was also forced to make the following engagement in an exchange of notes:

If in future the Hangyehping Company and the Japanese capitalists agree upon coöperation, the Chinese Government, in view of the intimate relations subsisting between the Japanese capitalists and the said Company, will forthwith give its permission. The Chinese Government further agrees not to confiscate the said Company, nor without the consent of the Japanese capitalists to convert it into a state enterprise, nor cause it to borrow and use foreign capital other than Japanese.

In this case of the Hangyehping Iron & Steel Company, then, are merged the buyer's desire to control a source of an essential raw material and the policy of economic penetration supported by a government for political purposes. A more striking case of economic imperialism would be hard to find. The significance of the case is that Japan believes that, under the present haphazard organization of international economic relations and under an international political system which makes an iron and steel industry essential to the maintenance of her place as a first-class power, she must make up for her poverty in resources at home by controlling resources abroad. It also seems to show a disbelief in the permanent reality of the open door in China as a guaranty

of continued free access to the raw materials and half finished products of that country.

DEVELOPING NEW SOURCES OF SUPPLY

The buyers' or consumers' interest under modern competitive conditions expresses itself not only in an effort to control sources of supply, but also in an effort to develop new sources of supply. The development of new sources of supply of a material has on a number of occasions been the answer given to restrictions or high prices imposed by producers' combinations. One of the proposals made at the present time (1923) to free the American consumer from the influence of restrictive policies imposed by the British on the distribution of rubber from the Federated Malay States, is the plan to plant rubber trees in the Philippine Islands and in Central and South America, and also to revive the production of wild rubber in Brazil.

Chemistry in a number of instances has restrained the effect of monopolies of natural products. Japan has practically a monopoly on natural camphor. The celluloid industry, which is highly developed in the United States, is dependent upon Japan for its raw materials. If Japan, however, raises the price of natural camphor too high, it becomes commercially practicable to produce synthetic camphor. During the war period this was done and the plants are still intact so that they represent a check upon the monopolistic tendencies of the Japanese Government.

In the same manner, the development of the fixation of atmospheric nitrogen is a restraint upon the monopoly of natural nitrates held by the Chilean producers.

British consumers have fretted under their dependency upon the United

States for raw cotton. The same is to some extent true of the French consumers. In both cases they have taken steps to develop new supplies in their colonies but with comparatively little success.

Says one British writer:

It has long been recognized that one of the weak points in the British cotton industry is its dependence upon foreign supplies of raw material. Many years ago it was realized that the constantly growing demand of the United States industry for American-grown cotton threatened the permanent stability of the British industry.¹⁰⁶

Says another Britisher:

Broadly speaking, in all the history of our industry Great Britain has been dependent on the United States for three fourths or four fifths of her supplies of raw cotton. There are many good reasons,

¹⁰⁶ *London Times Trade Supplement* of December, 1919.

about which I must not trouble you with details, why it would be most unwise for us to expect that we can continue in the coming years to obtain anything approaching such a proportion of our requirements from the United States. Her crop is probably approaching its economic limits. Her own consumption is increasing. Her climate is variable, and the size of her crops is subject to corresponding variations, and it would benefit not only us but all the world if the sources of supply were more widely spread. There are also the great advantages it will bring to the outlying portions of the British Empire, and the corresponding advantages to Great Britain in the exchange of manufacture for raw material if we can grow our own cotton.¹⁰⁶

The record of imports of raw cotton into Great Britain since 1910, by source of origin, follows:

¹⁰⁶ Mr. John W. McConnell before the Royal Colonial Institute in London, March 8, 1921, published in *The Textile Mercury* (Manchester) of April 2 and 9, 1921, p. 371.

RAW COTTON CONSUMPTION OF GREAT BRITAIN FROM "ANNUAL STATEMENT OF TRADE OF THE UNITED KINGDOM"*
(in thousands of bales)

	IMPORTS INTO GREAT BRITAIN FROM					RE-EXPORTS	RETAINED FOR CONSUMPTION
	United States	Other Foreign†	Total Foreign Countries	British Possessions†	Total		
1911.....	3,365	862	4,227	188	4,415	582	3,833
1912.....	4,390	1,127	5,457	155	5,612	648	4,964
1913.....	3,170	1,035	4,205	144	4,349	515	3,834
1914.....	2,569	904	3,473	256	3,729	433	3,296
1915.....	4,045	1,013	5,058	237	5,295	687	4,608
1916.....	3,204	850	4,144	198	4,342	475	3,867
1917.....	2,372	676	3,048	198	3,246	223	3,023
1918.....	1,952	879	2,831	147	2,978	1	2,977
1919.....	2,741	1,000	3,741	175	3,916	242	3,674
1920.....	2,790	801	3,591	214	3,805	501	3,304
1921.....	1,602	639	2,241	104	2,345‡	304	2,041
1922.....	1,826	889	2,715	149	2,864§	170	2,694

*Statistics, given in centals of 100 pounds, have been changed to bales of 500 pounds by dividing by 5.

† Egypt has been carried as a foreign country.

‡ Excluding 2,169 bales of linters.

§ Excluding 4,390 bales of linters.

PROPORTION (PER CENT) OF TOTAL IMPORTS OF RAW COTTON INTO GREAT BRITAIN ORIGINATING IN THE UNITED STATES, IN BRITISH POSSESSIONS, AND IN FOREIGN COUNTRIES OTHER THAN THE UNITED STATES

YEAR	UNITED STATES	BRITISH POSSESSIONS	FOREIGN COUNTRIES OTHER THAN THE UNITED STATES	TOTAL
	Per Cent	Per Cent	Per Cent	Per Cent
1911.....	76	4	20	100
1912.....	77	3	20	100
1913.....	73	3	24	100
1914.....	69	7	24	100
1915.....	76	4	20	100
1916.....	76	5	19	100
1917.....	73	6	21	100
1918.....	66	5	29	100
1919.....	70	4	26	100
1920.....	73	6	21	100
1921.....	68	4	28	100
1922.....	64	5	31	100

The proportion of total imports of raw cotton into Great Britain originating in British possessions during the twelve year period from 1911 to 1922, inclusive, has averaged about 5 per cent. Except in 1922, when the proportion originating in the United States was 64 per cent, Great Britain has depended upon the United States for from 66 per cent to 77 per cent of her supply of raw cotton, leaving from about 20 per cent to 30 per cent as having been imported from foreign countries other than the United States, and from 3 per cent to 7 per cent as having been imported from British possessions.

The dependence of English mills on American cotton has resulted in active efforts to grow cotton in the British Empire. In 1901 attention was drawn to this subject by the reduction of the American crop and Lancashire interests decided to organize a cotton-growing industry within the British Empire. The British Cotton Growing Association was accordingly inaugurated in 1902, although its charter of incorporation is dated August 27, 1904.

In 1913 it was said:

Much pioneer work has been done by this company since its inauguration. The majority of the cotton spinners and manufacturers, and cotton operatives' trades unions are directly or indirectly interested in the venture. They have begun to realize that a strong effort must be made to obtain cotton fields in our own colonies. A strong appeal is being made at the present time for further funds to carry on the good work. It is necessary to raise the company's subscribed capital to £500,000. In 1910, after strong representations had been made, the British Government granted a sum of £10,000 per year for three years for experimental purposes.¹⁰⁷

The British Empire produced over 5,000,000 bales of cotton annually, but of this about 4,000,000 bales is Indian cotton which is too short and harsh for use in English mills as these are largely confined to medium and fine goods. The Egyptian crop is very valuable, as Egypt is the only large source for long staple cotton, but cotton growing is confined to a strip along the Nile and even if additional barrages are erected

¹⁰⁷ Heylin, H. B.: *Buyers and Sellers in the Cotton Trade* (1913), p. 63.

to save as much water as possible, it is hardly probable that the present million bale crop can ever be more than doubled. Besides, in recent years the sudden upgrowth of the American tire fabric mills have made serious inroads into this main source of long-staple supply and may further place in jeopardy the fine-spinning of England. The work of the Association has had most success in Uganda and northern Nigeria but as yet the crop is trifling. Efforts by them to develop long-staple cotton in India have been unsuccessful.

During 1922 very considerable interest was taken in the development of cotton growing in Australia. The Government guaranteed $5\frac{1}{2}$ pence per pound for seed cotton of $1\frac{1}{2}$ -inch staple. Seed has been issued capable of sowing 130,000 acres (possibly not more than one half of which will be sown) and in 1924, it is said, seed for 750,000 acres will be available.

The Empire Cotton Growing Corporation¹⁰⁸ has been formed and ap-

parently it is working in coöperation with the British Cotton Growing Association.

The spinners in Great Britain are agreeing to a levy being made on all cottons used in Great Britain at the rate of 6d. per bale, and the Cotton Associations of Liverpool and Manchester, which practically embody all cotton merchants and brokers, have agreed to collect the levy. Since there are ordinarily used in Great Britain 4,000,000 bales of cotton, this levy will raise the annual sum of £100,000. The British Government have agreed in the event of the levy being thus made effective to recommend to Parliament an annual grant for five years at the rate of £50,000 per annum. Thus the substantial sum of £150,000 per annum will be available. There are other sources from which additional money may be expected if it proves to be required.

This fund is to be administered by the Empire Cotton Growing Corporation, which is being embodied under Royal Charter on a petition by the President of the Board of Trade. . . .¹⁰⁹

And again:

Mr. Winston Churchill, the Colonial Secretary, announced at a banquet given by the British Cotton Growing Corporation at Manchester (England), on June 7, that a sum of £1,000,000 is to be placed by the British Government at the disposal of the Corporation for the development of cotton growing within the Empire.¹¹⁰

In France the *Association Colonneire Coloniale* corresponds to the British Cotton Growing Association in Great Britain. At present not more than 10,000 bales of cotton are grown in French colonies, but efforts are being made on lines similar to that followed by the British Cotton Growing Association to stimulate the growth of cotton, particularly in Upper Senegal-Niger

Trade and Economic Review for 1922, No. 7, Pt. I, pp. 11, 12).

¹⁰⁹ Mr. John McConnell in *The Textile Mercury*, April 9, 1921, p. 398.

¹¹⁰ Commerce Reports, July 13, 1921, p. 223.

¹⁰⁸ "About 5 per cent more cotton was consumed by the British spinning mills in the second half than in the first half of the cotton year ending July 31, 1922, consumption in the six months ending with July being estimated at 1,454,000 bales, of which 1,150,000 bales were American, 160,000 Egyptian, 65,000 Peruvian, 24,000 Brazilian, 2,000 West Indian, 25,000 African, and 28,000 bales East Indian. Proportionately less American cotton has been used during the past two years and increased quantities of Brazilian, Egyptian, etc., have been used instead. . . .

"The principal accomplishment of the new Empire Cotton Growing Corporation during the past year has been the successful consummation of its efforts to get a contract let for the building of the Gezira (Sudan) Dam and the arrangement for the construction of the Kassala Railway project. As a result, it is expected that an increased production of 100,000 bales will be effected by 1925. . . . The British Cotton Growing Association (Manchester) marketed 165,000 bales of its own cotton during the past year, and it is the hope of the director that 225,000 bales, grown largely in Uganda, Sudan and Nigeria, will be sold during the coming year." Extract from *Supplement to Commerce Reports*,

territory where it is estimated that there is a sufficient population for the cultivation of 180,000 acres capable of producing 100,000 bales. An estimate gives the possible production under irrigation of 900,000 bales in twenty years time. The type of cotton to be grown would be similar to that grown in British African colonies.¹¹¹

THE EFFECT ON THE COMMERCIAL POLICIES OF NATIONS

This chapter has reviewed examples of coöperative buying by the ultimate consumers, both with and without government aid, examples of powerful industrial combinations which dominated certain markets in such manner that there was left no opportunity for outside buyers, and a further example in which the desire of industrial interests to control certain raw materials had advanced to the stage of financial dominance after having received governmental support. Governments cannot in most areas give to their nationals the same sort of support which Japan gave to Japanese interests in China.¹¹² But the examples cited all show the general tendency toward co-operation and combination.

The formation of coöperative associations among ultimate consumers is not likely to lead to international complications because these associations spread their efforts over so many commodities. And they may never reach the stage of controlling the price of a single commodity in a single national market, to say nothing of attaining strength to dominate the world price of any commodity.

Great national or even international

combinations of manufacturers, however, are formed with comparative ease and have shown themselves able to dominate the market for different raw materials. These combinations, whether or not they receive government support, raise various questions concerning the fair treatment to be accorded both to other manufacturers (or would-be manufacturers) in the same line and to producers.

Further questions may arise when combinations of buyers come in conflict with combinations of producers. But an effective combination of producers is very difficult to secure and probably never will exist except perhaps in respect to certain plantation products which are produced largely by great aggregations of European capital. In respect to other products the conflict with combinations of buyers is likely to be carried on by governmental measures aimed either at countering the control exercised by the buyers or at exploiting a national monopoly.

The examples cited in this chapter show also the tendency of governments to support their nationals in their overseas activities. Government coöperation if not government initiative is seen in the attempts of important national interests to free themselves from dependence on the existing sources of raw materials. As the effective combinations both of buyers and of producers are likely to be formed by Occidentals and as the governments of the respective nations are likely to support the interests of their nationals whether as consumers, or as monopolistic buyers, or as independents trying to establish themselves in spite of the dominance of a combination of other buyers, the governments of Occidental states are liable to become involved in every controversy which owes its origin to combinations of buyers.

¹¹¹ *Cotton Year Book*, 1923.

¹¹² This statement is not intended to express an opinion on the question whether the Japanese Government has or has not changed its policy with respect to China.

CHAPTER X

CONCESSIONS TO FOREIGN CAPITALISTS FOR THE EXPLOITATION OF RAW MATERIALS

Concessions are grants by governments under specified rules and limitations to private interests of the right to build a railroad, exploit a mineral, or otherwise develop an area economically. They are granted to capitalists particularly in regions where government control is relatively weak and where the economic conditions are backward. They may confer certain rights to exploit the resources or the labor of the area to which they apply. Assuming that capitalists are to be permitted to exploit the resources of the economically backward areas of the world, the issue is presented as to what should be the basis on which these concessions are granted, and what interest governments have in the regulation of these concessions and in the effects which they necessarily produce.

The granting of a concession is an act of sovereignty and is often to a degree a transfer of limited sovereign power.

Concessions so far as they relate to raw materials and power may be discussed under the following heads:

- I. PLANTATION CONCESSIONS
- II. FOREST CONCESSIONS
- III. MINERAL CONCESSIONS
- IV. PETROLEUM CONCESSIONS
- V. WATER POWER AND TRANSPORTATION CONCESSIONS

I. PLANTATION CONCESSIONS

Plantation concessions are granted chiefly by governments in tropical countries for the production of food specialties or raw materials. By concession in this sense is meant the grant by the government of large tracts of land for development purposes as distinguished from large ranches and estates. Some examples of this type of

concession are those granted for the production of fruit to the United Fruit Company in Central America; plantations for the production of rubber in the East Indies; copra plantations in New Guinea, developed by the Germans; tea plantations in India; and sisal plantations in East Africa.

The Government in Portuguese West Africa is encouraging the development of that province by granting large concessions of land for stock raising and by the payment of the transportation charges on all blooded animals imported from Lisbon for breeding purposes. British capital is largely interested and two companies have been granted licenses to stake out about a million and a quarter acres between them for stock raising purposes. Cattle have been imported from the Cape. The ultimate intention is to start a meat-packing industry.¹¹²

By the grant of extensive concessions of land, Russia is seeking to assure the agricultural development of the Don district. Two grants, one to the Sinclair Company and the other to the Friedrich Krupp Company, have been thus far made. Decrees have been issued for the establishment of concessions committees in London and Berlin. It is evident that the Government intends to pursue this policy of concession to foreigners and foreign capital along methodical lines.¹¹³

In the Dutch East Indies, the native sultans at one time made grants of land and these grants are still valid either in the hands of the original holders or of

¹¹² *British Board of Trade Journal and Commercial Gazette*, June 28, 1923.

¹¹³ *Economic Review*, May 18, 1923. See also *Economic Review*, Aug. 10, 1923, p. 125.

those to whom they have been transferred. The Dutch Government, however, now grants, and allows the sultans to grant, only leaseholds.¹¹⁴ Regulations concerning agricultural concessions are included in the Long Lease Ordinance for the self-governing districts in the territories of the Netherlands East Indies outside of Java and Madura. This Ordinance was published in the Government official gazette in 1919. Its provisions may be summarized as follows:

The consent of the Head of the District Administration is required to confirm a leasehold right. The maximum period of a grant is seventy-five years. No more than 3,500 Hectares may be embraced in a request. A lease is granted as a rule only for the purpose of agriculture or cattle breeding. Leases are granted only to Netherlands subjects, inhabitants of the Netherlands Indies, commercial companies established in the Netherlands or in the Netherlands Indies. In the case of incorporated companies the sole manager or director, if there be only one, must be either a citizen of the Netherlands or a resident in the Netherlands East Indies. If there be two managers or directors, both must meet this requirement. If there be more than two, the majority of the managers as well as the directors must fulfil this requirement. To firms or partnerships the same provisions generally apply. In the case of the death of the grantee of a long lease these provisions, so far as they concern his legal successors who do not immediately conform to the requirements, will be suspended for one year from the day on which the succession commences. Freedom from certain requirements prescribed in the Ordinance may be granted to those persons or companies who before 1919 were in possession of agricultural concessions. The right granted in the lease ceases not only at the time of the expiration of the period for which it is granted but as a result of abandonment or by the declaration that it

has been canceled. Cancellation may take place because of the diversion of its purpose, non-payment of the stipulated fees and non-compliance with the conditions of cultivation if those conditions have been stipulated. A provision is made in the Ordinance for the punishment of those who fail to comply with the provisions of the Ordinance.

II. FOREST CONCESSIONS

As the forests of the more settled countries are consumed attention is turned toward the forest resources of the tropics, of European Russia and Northern Asia. Concessions are granted by many countries for the exploitation of their forests. In Russia interest necessarily centers in the forests since they will have an important relation to the rehabilitation of that country.

The forest resources of Russia, especially of northern and northeastern Russia, are of the utmost importance to Great Britain, France and Belgium, which are . . . heavy consumers of Russian sawn lumber and other manufactured forest products. German lumber industry, on the other hand, is almost entirely built on Russian raw material. . . . Of the various forest regions of Russia, those of northern European Russia are the most valuable and economical for construction purposes and will play the greatest part in export trade. . . . Russia's forest resources are bound to play an important part in her financial and economic rehabilitation. . . . The development of the timber industry will create a favorable foreign trade balance. . . . No other resource of Russia will be so easy to convert into cash as her timber.¹¹⁵

These conditions have created an interest both in and outside Russia in the methods of exploitation. Detailed information on concessions is not available, but the general situation is known. The Government owns the forests. Concessions to exploit these

¹¹⁴ See Government Almanac of Netherlands Indies for 1923.

¹¹⁵ R. Zon and W. N. Sparhawk, *Forest Resources of the World*, Vol. I, pp. 486-487.

resources are granted to individuals who furnish the logging equipment, build the mills and railroads.

Timber concessions have been concluded with English and Dutch firms and negotiations are on foot with Norwegian, French and German firms.¹¹⁶

Another concession is reported as follows:¹¹⁷

The joint-stock company Russangloles, incorporated in England, has been given a concession for the exploitation of the Pomozdinsk forest in the Ust-Sisolskuyezd of the province formerly known as Vologda, now the oblast of Komi, up the Vichegda River and its tributaries; an allotment of timberland, Vislyansky, and 13 other forests with a total area of 1,029,238 dessiatines (1 dessiatine = 2.7 acres), and forest area of about 975,500 dessiatines; and a section in the Konegorsk forests (situated on both sides of the North Dvina River) of a total area of 238,341 dessiatines and forest area of 209,067 dessiatines. The method of exploitation, the price to be paid for the concession, and the terms are similar to those of the joint-stock company Russgollandles.

It is also reported¹¹⁸ that the Moscow Concession Commission has approved a convention between Norwegian interests and the Severoles providing that a concession be granted for the Onega forests to a Russo-Norwegian company.

The forests of the Russian Far East are likely to furnish the world of the future with great quantities of timber and other wood products. These resources are near the sea and along rivers which will furnish transportation and power. The Far Eastern Republic laid down general rules for granting concessions for forest exploitation (Au-

gust, 1921). Even if the rules have been modified they serve to illustrate the procedure of granting concessions. They provided:

Concessions for forest areas were to be granted for a term not longer than 36 years. The holder of the grant must pay annually in gold standard the arranged cost of the annual estimated timber allotments. He must also pay annually 10 per cent of the fixed price for forest improvements. He must pay an annual tax on the net profits of the operation. He must practice reforestation. Within 5 years mills, factories, harbors and roads must be built with the approval of the Government. The Government receives at cost plus 10 per cent profit for the holder not more than 10 per cent of the manufactured or half-manufactured products. As a guarantee the holder pays to the Government at the time of signing the contract a cash deposit of half of the fixed annual cost of the estimated timber allotment. The holder must pay all Government income and other taxes and assessments. Local taxes are not to exceed 30 per cent of the holder's Government taxes. At the expiration of the contract the Government may acquire the enterprise at actual cost. All buildings become the Government's at the end of the contract free of charge.

In this connection (in spite of the fact that it contains concessions other than forests concessions) a list of concessions offered by the Russians at the Hague Conference in 1922 will be suggestive.¹¹⁹ The list was turned over to the allied experts on the 7th of July in the course of the sessions of the sub-commission on private property. It opens with these words:

One of the modes of reconstruction of Russian industry is, according to the Soviet Government, the direct participation of foreign capital in the operation and direction of various kinds of enterprises or combinations of enterprises. As a general rule, the Soviet Government holds that the most suitable form which such participation

¹¹⁶ U. S. Commerce Reports, June 11, 1923, p. 690.

¹¹⁷ U. S. Commerce Reports, July 2, 1923, p. 24.

¹¹⁸ U. S. Commerce Reports, July 23, 1923, p. 221.

¹¹⁹ *L'Europe Nouvelle*, pp. 946 ff.

might take is that of mixed stock companies or associations in which foreign capital will participate on the one hand, and on the other the capital which can be supplied directly by the Soviet Government. The principal branches of industry which may offer subject-matter for concession are the following.

Then is given a summary in detail of proposed concessions under these headings:

PETROLEUM INDUSTRY

1. Regions Already Exploited Previously
 - a. Baku region
 - b. Grosny region
 - c. Ural-Emba region
 - d. Kuban region
 - e. Turkestan
2. Regions Prospected But Not Yet Exploited
Regions of Grosny
3. Unprospected Regions and Areas
 - a. Baku region
 - b. Ural-Emba region
 - c. Kuban region
 - d. Turkestan
 - e. Province of Vologda

MINING INDUSTRY

- A. Iron ore
- B. Copper ore
- C. Polymetallic ores
- D. Coal
- E. Gold and platinum

EXPLOITATION OF FORESTS

- A. Thirty-three regions in European Russia
- B. Caucasus
- C. Siberia

PAPER MANUFACTURE

NEW ENTERPRISES

- A. In the region of the Kem River
- B. In the Kotlas region
- C. Arkhangel region
- D. Region of the Luga
- E. Kuban

SUGAR INDUSTRY

MATCH INDUSTRY

MANUFACTURE OF AZOTIZED PRODUCTS

CHEMICAL INDUSTRY

ELECTROTECHNICAL INDUSTRY

AGRICULTURAL CONCESSION

1. Colonization concessions
2. Improvement concessions
3. Cultivation of cereals
4. Concessions for stock raising
5. Concessions for the construction of refrigerating establishments and elevators
6. Concessions for harvesting and utilizing medicinal herbs

Few concessions have been made in Finland:

Some years before the war a British syndicate obtained a concession of about 3,600,000 trees in the northernmost part in Finland. The Government gave this concession on very easy terms, extending the contract to cover a period of 16 years. The concession expired a short time ago without anything having been done by the British company to exploit these forests on a large scale. The main difficulty was to put the River Paatsjoki in condition for floating, as this would require a large amount of money, and the war interfered with the company's plans. It is believed that other concessions will be given by the Government when normal conditions are restored.

Another company with limited capital, partly Finnish and partly Russian, obtained a concession during the war near the same region where the British syndicate operate, but it is believed that this company acquired the concession with the intention of selling it to other parties for exploitation.¹²⁰

III. MINERAL CONCESSIONS

The exploitation of the great mineral resources of the world has also been to a large extent carried on under con-

¹²⁰ Axel H. Oxholm, of the Department of Commerce, *Forest Resources, Lumber Industry and Lumber Export Trade of Finland* (1921), p. 34.

cessions. American companies have been granted mineral concessions in Bolivia. The concession system has been employed in China and in Mexico to exploit mineral resources. Concessions in Africa have a special interest. Mineral concessions, it will be recalled, were factors in the rivalry over Morocco which nearly precipitated the World War in 1905 and again in 1911.

Since the days of Leopold, Central Africa has aroused international interest. The Berlin Act of 1885 guarantees the open door in the Conventional Basin of the Congo. Under the régime of Leopold the chief objects of his ex-

ploiting zeal were ivory and rubber. Minerals are now the chief sources of wealth. The Belgian colony is a treasure house.

At present, copper is the chief product of the Congo, with gold, diamonds and tin next in order of importance. Among the colony's undeveloped resources may, however, be mentioned considerable bodies of iron, bauxite, manganese, tungsten, molybdenum and lead ores. Oil shales outcrop in a number of localities and promising deposits of asbestos and mica have been located. The following table shows the importance and growth of the mineral industry in this colony.¹²¹

THE GROWTH OF THE MINERAL INDUSTRY IN BELGIAN CONGO

YEAR	GOLD KILOS	COPPER TONS	DIAMONDS CARATS	VALUE OF MINERAL PRODUCED
1911.....	908	998	....	....
1912.....	967	2,996	....	....
1913.....	1,476	7,407	....	\$3,000,000
1914.....	930	10,722	....	3,850,000
1915.....	3,935	14,041	48,935	7,420,000
1916.....	2,852	22,167	53,940	13,107,000
1917.....	....	27,462	100,000	18,232,000
1918.....	....	20,238	164,200	14,110,000
1919.....	2,892	23,004	199,021	13,000,000
1920.....	5,046	19,500	274,103	15,100,000

In 1913 and 1915 the *Union Minière Company* discovered uranium veinlets in two of its mines. In 1920, active development of these prospects was begun. The reserves are large and the quality of the ore is such that low production costs of uranium and radium may be anticipated. The reports give the contents of U_2O_5 of 50 to 70 per cent, a staggering figure when compared with 2 per cent ore from Colorado and Utah.

The development of the Congo has

¹²¹ *Mineral Industry, and Engineering & Mining Journal.*

been in the hands of, and largely controlled by, the *Union Minière du Haut Katanga*. This company is in turn controlled by the Tanganyika Concessions, Ltd. (39.2 per cent holding) and *Société Générale de Belgique* (Belgian and English capital). The *Union Minière Company* has a concession covering a mineral zone of about 60,000 square miles in the district of Katanga, Belgian Congo, bounded on the south and east by northern Rhodesia. The Company also owns valuable water-power and other mineral rights including iron.

West of its direct holdings, in the valley of the Kasai, and bordering Portuguese Angola and northwestern Rhodesia, lies the sphere of the "Forminière." The name and the company are alike formed by a fusion of the *Union Minière* and the *Société Forestière*. The Forminière's territories have already yielded considerable quantities of diamonds, and the production of several other minerals is being developed.

The total population of Belgian Congo is probably less than 10,000,000. The white population is about 8,000 of whom perhaps 10 per cent are engaged in mining. Many American engineers are engaged with the Belgian operating companies; in fact, several of the more important executive positions are held by Americans. The wage for common labor is extremely low. As in most of tropical Africa, labor shortage is a chronic complaint, due not only to the unwillingness of many of the natives to work, and the lack of easy and direct transportation from the more densely populated regions to the mines, but also to the sparseness of the population, which is perhaps less than ten to the square mile (= 9,090,000) for the whole Belgian Congo.

Interior transport, as in many other countries, is the weak link which retards vigorous development. At present, high freight rates permit the export of only relatively valuable raw materials. Transport follows the Congo and its tributaries, the navigable stretches being linked to one another by railroads. Within this colony are over 9,000 miles of rivers navigable to steamers of light draft, but such service is both slow and costly. The colony has a little over 1,000 miles of railroads. The importance of railroad development can scarcely be exaggerated. At present, a large part of the high cost of production of copper

is due to the expensive rail and water transport between Europe and the mining regions.

Machinery and supplies going in and ore or metals coming out of Belgian Congo can avoid being loaded and reloaded seven times on the rail and Congo River route only by going around South Africa, via Cape Town, Durban or Beira—which is about as direct as shipping from San Francisco to Chicago by water and rail. A direct route from Leopoldville to Bukama would not only open up a new country, rich in copper, tin and diamonds, but would so lower costs in the Katanga as to enable that district to produce probably the cheapest copper in the world. The reserves of rich ore are enormous (in 1922 estimated at 60,000,000 tons, averaging 6.65 per cent copper), comparing favorably in amount with the low-grade mines at Chuquicamata, Chile and Rio Tinto, Spain, where the ore reserves, although somewhat larger, average only about 2 per cent copper.

A large number of the concessions in the Congo give the right to prospect large territories over a considerable period at the expiration of which a certain number of smaller but still relatively large mining claims may be staked out. The colony, in turn for such rights, is given a participation in the mining companies, varying from one third to one half of the stock issued. In addition, the colony is levying a 2 per cent export tax on all minerals produced and there is an import tax on supplies entering the colony.

The Congo gold produced in state mines is all sent to Belgium and used either in coinage or reserved for the use of Belgian goldsmiths. Part of the Katanga copper goes to the United States and England for refining, but an effort is being made towards diverting

the whole of this to the Hoboken Works near Antwerp. A large portion of the Kasai diamonds must be sold to the Belgian Cutting Works. The mining companies must offer employment to Belgian engineers, and are encouraged to purchase their supplies in Belgium.¹²²

Coke for the smelters of the *Union Minière* is supplied by the Wankie Colliery in Rhodesia, 725 miles distant by rail. The coal in the Congo is somewhere between true lignite and bituminous, but unfortunately (where sampled) non-coking. While not valuable for the smelter, it will facilitate considerably the fuel problem of the *Union Minière* and the Katanga railroads and the river steamers which are at present using wood fuel exclusively for their boilers and locomotives.

A plan for the further exploitation of the resources of Central Africa is found in an exclusive concession granted in northern Rhodesia to the Rhodesian-Congo Borders Concession, Ltd. This grant was made by the British South African Company, which governs northern Rhodesia under a charter granted by the British Government. The grant to the Rhodesian-Congo Border Concession, Ltd., gives to it the exclusive right to prospect for minerals in an enormous area for a period of five years, and thereafter it is required to stake out mineral claims and to develop them under prospecting licenses such as are common in northern Rhodesia. This company will exploit the copper resources of northern Rhodesia. It holds a number of new and important patents which will assist in making its operations easy. In addition, the new company proposes to exploit other important mineral resources of the area.

¹²² *Engineering & Mining Journal*, Oct., 1920, p. 805.

IV. PETROLEUM CONCESSIONS

The importance of petroleum¹²³ in the development of modern industry and transportation has resulted in an eager search for concessions in areas from which it may be obtained. These concessions in turn, because of their many and varied locations, have a political as well as a commercial aspect.

The intensity of the political aspect of the problem has been increased with the recognition of the importance of petroleum in schemes for national defense. The oft-repeated prediction that present production will rapidly exhaust the fields now in operation has led to a scramble for control of the potential reserves in the fear that they might be monopolized by some one nation. Thus the commercial importance of oil combined with its strategic value has given to it a prominent place among international problems.

As a political factor oil has been of particular interest in Mexico, Mesopotamia, Persia, Sakhalin, and the Netherlands East Indies. Distinction must be made, however, between oil concessions affecting the sovereignty of the countries in which they are sought, and those affecting the relations between countries outside of those in which the concessions are sought.

Second only to the United States, Mexico is now the largest producer of crude petroleum in the world. As in many other countries which are rich in petroleum, the development of her natural resources is largely controlled by foreigners. Under Mexican laws, as they existed before the establishment of the new Constitution of 1917, opportunities were afforded the foreigner to acquire probable petroleum areas

¹²³ See pages 162 and 186. *Struggle for Petroleum*, Dr. Stanley K. Hornbeck, Department of State; and *The Chester Concession*, Colonel Lawrence Martin, Geographer of the Harbord Mission.

through the purchase of titles or long term leases. Some governmental grants were also made and in general much territory was secured rather quickly after the extent of Mexican petroleum resources became suspected. The greatest number of these concessions and leases are held by Americans, although several foreign combines have large holdings. In 1919 American companies produced about 70 per cent of the Mexican crude oil production.

The enactment of the new Constitution of 1917, however, placed foreign concessions in a precarious state, but, after years of discussion and politically dangerous dispute, the matter has recently been adjusted apparently to the satisfaction of everyone concerned.

Most of the Central and South American countries have oil deposits for the exploitation of which concessions are still being acquired. In many of these countries there are no restrictions discriminating between natives and foreigners, although in some of them the laws governing the acquisition and development of petroleum are in some of their provisions onerous and ill-advised. No discriminations in the concession laws between aliens and natives exist in Venezuela, Colombia, Guatemala or Costa Rica. Concessions to the better known oil territories have already been granted and are held chiefly by British-Dutch interests, particularly in Venezuela.

In Europe some of the fiercest imperialistic competition has occurred over the development of petroleum resources. The treaty imposed by the Central Powers upon Rumania on May 7, 1918, illustrates how eager were the militarists of Germany to obtain control of the Rumanian oil fields. Russia has been the principal producing factor in the oil development of the Caucasus. Baku has long been famous as an oil

center. Even in Russia, however, this natural resource was at the beginning largely exploited by foreigners, in the first instance by Scandinavians. Until the breakdown of the Government a large proportion of the oil production of Russia was in the hands of foreigners.

The Anglo-Persian Oil Company has control of the oil in about two thirds of Persia, all but the five northern provinces, by virtue of a blanket concession which runs through 1961. This British company has, so far as production is concerned, a practical monopoly of the petroleum situation in that part of the world.

Since 1921, two American companies, the Standard Oil Company of New Jersey and the Sinclair Consolidated Oil Corporation, have attempted to secure oil concessions in Persia. The Anglo-Persian Company has also had an interest in the possible fate of the exploration and exploitation rights in the five unconceded provinces.

The Mesopotamia petroleum fields are a subject of controversy. Long before the war Great Britain, Germany and the United States were endeavoring to obtain concessions in Asiatic Turkey, and in 1914, the situation was as follows:

1. The Turkish Petroleum Company, a joint project of German and English capital, had just before the war negotiated for a concession for the development of oil lands in the vilayets of Mosul and Bagdad.

2. The Standard Oil Company of New Jersey had obtained a prospecting permit for the exploration of supposed oil areas in Palestine.

3. A combination of Canadian and American interests since 1911 had claimed a concession for the building of railroads in Asiatic Turkey and the development of the land and exploitation of its mineral resources for twenty kilometers on each side of the right of

way.¹²⁴ This covered the supposed richest mineral lands and overlapped areas included in the territory claimed by the Turkish Petroleum Company.

By the Treaty of Versailles Germany lost her oil rights in the Near East and by the "San Remo Agreement" Great Britain turned over the German share therein to France. In consideration for this France was to allow the construction of pipe lines for the transportation of oil across Syria. The San Remo Agreement is regarded as no longer in force. The oil problem in the Near East is still acute. At present nationals of the United States, Great Britain, Holland, France and several other countries are endeavoring to establish their conflicting claims for oil lands in this section of the world.

In Mesopotamia, Great Britain, in answer to communications from the American Government, has formally pledged that the natural resources of that area are to be secured to the future Arab State to be established in that region and there is no intention to establish any monopoly.¹²⁵ The foreign minister, in his note of April 21, 1921, nevertheless, makes it clear that

While there is no intention of discriminating against non-British interests, account must be taken of legitimate rights acquired before the war, and this applies equally to Palestine where American claims are understood to exist.¹²⁶

The United States expressed in 1920 its stand on the entire question of oil in this region, and especially in regard to the San Remo Agreement, in the following terms:

¹²⁴ See page 187. *The Chester Concession*. Colonel Lawrence Martin, Geographer of the Harbord Mission.

¹²⁵ International Conciliation, Sept., 1921, No. 166, p. 304, *et seq.*

¹²⁶ Memo of British Foreign Office, April 21, 1921 (Quoted in the Federal Trade Commission's Report on *Foreign Ownership in Petroleum Industry*, p. 41).

The fact cannot be ignored that the reported resources of Mesopotamia have interested public opinion of the United States, Great Britain and other countries as a potential subject of economic strife. Because of that fact they become an outstanding illustration of the kind of economic question with reference to which the mandate principle was especially designed, and, indeed, a peculiarly critical test of good faith of the nations which have given their adherence to the principle. This principle was accepted in the hope of obviating in the future those international differences that grow out of a desire for the exclusive control of the resources and markets of annexed territories. To cite a single example: Because of the shortage of petroleum, its constantly increasing commercial importance, and the continuing necessity of replenishing the world's supply by drawing upon the latent resources of undeveloped regions, it is of the highest importance to apply to the petroleum industry the most enlightened principles recognized by nations as appropriate for the peaceful ordering of their economic relations.

This Government finds difficulty in reconciling the special arrangement referred to in paragraphs 18 and 19 of your note, and set forth in the so-called San Remo Petroleum Agreement, with your statement that the petroleum resources of Mesopotamia, and freedom of action in regard thereto, will be secured to the future Arab State, as yet unorganized. Furthermore, it is difficult to harmonize that special arrangement with your statement that concessionary claims relating to those resources still remain in their pre-war position, and have yet to receive, with the establishment of the Arab State, the equitable consideration promised by His Majesty's Government.

This Government has noted in this connection a public statement of His Majesty's Minister in charge of petroleum affairs to the effect that the San Remo Agreement was based on the principle that the concessions granted by the former Turkish Government must be honored. It would be reluctant to assume that His Majesty's Government has already undertaken to

pass judgment upon the validity of concessionary claims in the regions concerned, and to concede validity to certain of those claims which cover apparently the entire Mesopotamian area. Indeed, this Government understands your note to deny having taken, and to deny the intention to take, any such *ex parte* and premature action. In this connection, I might observe that such information as this Government has received indicates that prior to the war, the Turkish Petroleum Company, to make specific reference, possessed in Mesopotamia no rights to petroleum concessions or to the exploitation of oil; and, in view of your assurance that it is not the intention of the mandatory Power to establish on its own behalf any kind of monopoly, I am at some loss to understand how to construe the provisions of the San Remo Agreement that any private petroleum company which may develop the Mesopotamian oil fields "shall be under permanent British control."¹²⁷

A letter signed by Mr. Leland Harrison, the Assistant Secretary of State, dated July 3, 1923, in reply to a letter of inquiry from the National Popular Government League, indicated the position of the United States with reference to concession claims by our nationals in the disputed areas:

In reply to your . . . question as to whether the concessionnaires¹²⁸ had been promised moral or political indorsement, or have received assurances that in the event of any dispute this Government would be bound to defend the validity of the concession, is in the negative. It is not this Government's practice to give such assurances, or "to give implied future guarantees."

* * *

For your further information it may be added that neither the department nor its officers in the field took part in the negotiations for the concession. These were car-

¹²⁷ International Conciliation, *The San Remo Oil Agreement*, pp. 322 and 323, Sept., 1921, No. 166. Secretary of State Colby to Lord Curzon, Nov. 20, 1920.

¹²⁸ Referring to the Chester concession.

ried on directly by the parties concerned. As the department has taken occasion to point out in communicating with other correspondents on this subject, this Government's interest in matters of this nature is that of securing recognition for the policy of the open door—in assuring equality of commercial opportunity and fair play. In other words, to quote again from your letter, the department believes that this Government "should deal with questions affecting its nationals as they arise as international courtesy, equity and justice justify."¹²⁹

The British have a monopoly of the petroleum producing business in the oil fields of Burma. The largest factor in this territory is the Burma Oil Company, which is partly owned by the Anglo-Persian Oil Company. American interests have made repeated but unsuccessful efforts to obtain concessions for the working of petroleum deposits in British India. According to the latest available information the policy of the Government of India, adverse to foreign participation in the development of its petroleum resources, has not been modified.

In the Netherlands East Indies the proven and probable petroleum areas are almost entirely in the control of the Royal Dutch-Shell interests. One of the latest developments is known as the Djambi concession, covering an extensive area of central Sumatra. American interests requested participation in this concession, but they were not admitted. The Royal Dutch-Shell Group possess now a practical monopoly of the production of the Dutch East Indies, but the Dutch Government has stated that when other regions are opened for development other companies and other nationals will be considered.

Our State Department, in a note to the Netherlands Government in 1920,

¹²⁹ *N. Y. Journal of Commerce*, July 21, 1923, p. 5.

stated that the disposition of the Djambi concession

in the manner stipulated by the proposed agreement impresses this Government as an indication of a policy to exclude companies controlled by American citizens from the petroleum industry of the Netherlands East Indies.¹²⁰

In the correspondence between the American and Netherlands Governments over this matter, emphasis was placed upon the necessity for reciprocity in the rights of exploitation of the resources controlled by the respective countries. Attention was called to legislation of the United States which excludes the capital of foreign nations from investment in American resources in public lands¹²¹ if the governments of foreign countries do not grant the same privilege to American capital. A note from the American Legation at the Hague to the Minister of Foreign Affairs of the Netherlands, dated April 19, 1921, sums up the problems involved as follows:¹²²

On every occasion I have sought to impress upon the Government of the Netherlands that the real interest of the Government of the United States in these matters lies in the recognition of the principle of mutual or reciprocal access to vital and natural resources by the nationals of the United States and by those of foreign countries, and the belief that the recognition of the principle of equal opportunity is the only solution of the future oil problems throughout the world. I have pointed out that the United States has for years carried the burden of supplying a large part of the petroleum consumed by other countries, that Dutch capital has had free access to American oil deposits, and that the petroleum resources of no other country have been so heavily drawn upon to meet foreign

needs as the petroleum resources of the United States. I have pointed out that in the future ample supplies of petroleum have become indispensable to the life and prosperity of my country as a whole because of the fact that the United States is an industrial nation in which distance renders transportation difficult and agriculture depends largely on labor-saving devices using petroleum products.

Much confusion has resulted from the fact that those who discuss the world petroleum situation do not distinguish between actual production and known or estimated reserves. In present annual production the United States is dominant (about 65 per cent of the world supply), but this by no means disposes of the issue. The contest over oil today is not for the present but for the future world supply. American reserves are being depleted. The real struggle is for the undeveloped fields of large expected future production.

V. WATER POWER AND TRANSPORTATION CONCESSIONS

The development of the raw material resources of the world is often dependent upon both transportation and power. The question of transportation is simple when there are navigable rivers or a sea coast with harbor facilities. The future development of new sources of raw materials must be to a large extent in the undeveloped interiors.

Without navigable water facilities the question of transportation becomes one of railroads and in the case of petroleum, pipe lines. Railroad concessions in economically backward areas of the world usually have a close relationship with concessions for the exploitation of natural resources. For example, in the case of the South Manchurian Railway, in the case of the Shantung Railway, in the case of the

¹²⁰ See Senate Document No. 11, 67th Congress, 1st Session, p. 21.

¹²¹ These lands total only 9½ per cent of the total area of the United States.

¹²² Senate Document No. 39, 67th Congress, 1st Session, p. 3.

Bagdad Railway, and in the case of the railway connecting the Katanga copper fields with the coast, the concessions for the exploitation of mineral resources were made a part of the concession to build the railway.

The Chester concession in Asia Minor calls for the building of a network of railroads in Asia Minor and gives to the railroad concessionnaire the right to exploit the natural resources of the district over a strip of land for 20 kilometers on each side of the right of way.

Where the grant of mineral and other development rights do not offer enough inducement to contractors, financial guarantees are sometimes offered by governments. This type of concession is common in South American countries. As far back as 1863 an American engineer named Wheelwright secured a concession for the construction of a railroad from Rosario to Corodba in Argentina. Provision was also made for the ultimate extension of this road over the Andes to the west coast. The contract provided for the free entrance of all materials to be used in connection with the construction and equipment of the railroad for a period of forty years. In addition, the Government guaranteed the company an annual income of 7 per cent on its capital and granted to them a strip of land a league wide on each side of the railroad. All lands necessary for the company's stations, warehouses, wharves and offices were also to be provided by the Government.¹³³ This type of concession is in general typical of the contract usually granted for the development of railroads in South America.

The importance of railroads in the development of a new country has long been recognized and many treaties

contain provisions pertaining to the construction of railroads in such an area. Article 16 of the Berlin Act (1885), which provides for the open door in the Congo Basin, also provides that all railways, roads and lateral canals which may be constructed with the special object of correcting the in-navigability of waterways subject to the treaty stipulations are to be considered as dependencies of the Congo River and equally open to the traffic of all nations.¹³⁴ Between Mozambique, Rhodesia and Nyasaland provision has been made that each country might build railroads in the territory of the other. In French Somaliland the treaty of December 13, 1906, provides for the extension of the existing railroad which is to be open on terms of absolute equality to the three parties to the treaty, i.e., France, Great Britain and Italy.

With the development of mineral resources in addition to the problem of transportation there is the problem of power. The development of the mineral resources of the world depends on local availability of cheap mechanical or electrical energy. This energy may be derived from mineral fuel or water flowing in surface streams. Valuable mineral deposits have already been discovered in Africa for the development of which power will be needed. Thus far the coal that has been discovered is not suitable for use in refining and separating the ore, nor has it been found in quantities large enough to carry on extensive development operations. Africa has, however, according to the most authentic estimates that have been made, nearly one half of the potential water power of the world. Moreover, a considerable part of this potential power is located in regions which are reported to have

¹³³ *Hispanic-American Relations with the United States*, by William Spence Robertson (1923), pp. 242-243.

¹³⁴ U. S. Tariff Commission, *Colonial Tariff Policies*, p. 87.

great mineral wealth.¹³⁵ With these few facts in mind the importance of concessions for the development of water power projects becomes clear. The holder of a concession for water power rights will be able to control to a great degree the exploitation and development of the country. In the Congo basin, which according to reports seems to have the largest power possibilities, one concession for water power rights has already been granted. The *Union Minière Company*, which has a mineral concession covering a zone of 60,000 square miles, has also secured important water rights in the district of Katanga.

A concession for the establishment of an electric power plant of the Yanahuanca River in Peru has been given to an American company which is exploiting the mineral resources in that district.

Because of the enormous capital investment involved, the government in some localities has undertaken to build electric power plants to supply local power needs.¹³⁶ Such an undertaking

¹³⁵ U. S. Geological Survey, *World Atlas of Commercial Geology*, Pt. II, Water Power of the World.

¹³⁶ "The water power law of Brazil is Portuguese rather than Spanish. The general law of water rights follows that of Argentina. The Government is expressly authorized to foster the utilization of hydro-electric power for the transformation into electrical energy, when applied to 'federal' services. Any excess power from such installations may be granted to private investors for use in private industries. This corresponds to the practice in the United States of a construction by the Government of navigation dams, and at such height and structure as to afford water power in excess of that required for navigation purposes; and the leasing of such excess to private enterprises. In Brazil, however, it would seem that 'federal' service is not limited to the federal promotion of navigation, but may be extended to the federal control and use of water powers as such, rather than as incidental to navigation improvements." (Extracts from paper presented before the second Pan-American Scientific Congress in Washing-

ton, D. C., Feb., 1915, by Rome G. Brown, Minneapolis, Minn., and reprinted in the *General Electric Review* for May, 1916, p. 402.)

has recently been started in New Zealand. An agreement has been concluded between the New Zealand Government and the Auckland Electrical Power Board whereby the government will commence immediately the development of a large hydro-electrical power station at Arapuni, about 125 miles south of Auckland, which will be able to supply 15,000 kilowatts of power per annum for the use of the city of Auckland.

More and more every day the importance of water power development is being recognized. Laws of many countries concerning the alienation from the state of water rights are being modified in order to permit engineers and capitalists to proceed to develop these resources.

EFFECT OF CONCESSIONS ON INTERNATIONAL RELATIONS

The granting of concessions to foreign capitalists for the exploitation of natural resources raises a number of questions of world importance. The first is the question of the exploitation of the human resources of the locality affected. Concessions are at times granted where there is an abundant supply of native labor. In other cases, when the labor supply is deficient, plantation or mine owners import labor under a contract system. In tropical areas the white man is not able to engage in manual labor. Therefore, the native labor supply becomes essential to economic success. The native, however, is not always willing to work and the wage offered by the foreign capitalists is frequently no inducement. There has, therefore, been on a number of occasions an effort made to force the native to labor. This has given rise to

ton, D. C., Feb., 1915, by Rome G. Brown, Minneapolis, Minn., and reprinted in the *General Electric Review* for May, 1916, p. 402.)

what is known as the native labor problem and a number of international agreements as well as local laws have provided for the protection of the native and the preservation of his rights.

The granting of concessions also raises interesting questions regarding the exploitation of the physical resources of the world. It may be conceded that this exploitation will and should go on; but obviously it should not go on unregulated and uncontrolled.

Concessions should be granted upon such a basis that international rivalry will be reduced to the minimum. There should be, for example, an equal opportunity in the exploitation of the natural resources of economically backward parts of the world, in so far as they are divisible and competitive, as plantations usually are; and an equitable distribution of the quantity and quality of the product produced under larger international concessions when the concessions deal with great mineral resources of a monopolistic character. In addition, concessions for the exploitation of irreplaceable natural wealth should be guarded in such way as to prevent waste and to produce the maximum benefit for the locality in which the natural resource is located.

If the world is not ready to adopt the principle of international control, the principle of the open door at least can be extended. In the cases of mineral resources the problem is the most complicated. The following suggestions were made by a Committee on Domestic and Foreign Policy of the Mining and Metallurgical Society of America, in 1921:¹³⁷

¹³⁷ Proceedings of Mining and Metallurgical Society, Nov. 15, 1921, Bulletin 151. The committee consisted of: H. Foster Bain, Director of U. S. Bureau of Mines; S. H. Ball, Mining Geologist, New York; Van H. Manning, Director, Technical Research, American Petroleum Institute, New York; George Otis Smith, Director,

Any restrictions, national or international, which interfere with the necessary searching of the earth are in principle undesirable. We recognize the necessity and economic justification, during the early exploration stage and particularly in the case of petroleum, of rights covering large areas in order to induce and justify the expenditures necessary for careful exploration work in new regions. Where such concessions are safeguarded by the stipulation that within a limited period of, say, three to five years, the holder must select for retention a small percentage of the original exploration area, the result is development without exclusion. Exclusive concessions on large areas without such a reduction factor are economically unsound.

* * *

In regard to this necessary activity of exploration we stand for equal opportunity and the open door—national and international. Equal opportunity and the open door are considered as implying, among other things, that, except under conditions of national crisis, there shall be no restriction on the issuance of mining licenses and concessions to foreigners or the transfer of concessions to foreigners; and that there be no restriction on the nationality of the shareholders, managers, or directors in companies owning mining and exploration rights and concessions, allowing thereby the free purchase and acquisition by individuals of any nationality. The right of nations to control their own natural resources in times of war is of course paramount. There may be other special and local circumstances which might make such control desirable in times of peace. For the most part, however, all large mineral operations are by incorporated companies and the company being a creature of the state, the state may and usually does define very exactly its rights and powers and in this way protects its own interest.

U. S. Geological Survey; A. C. Veatch, Consulting Geologist, New York; H. V. Winchell, Mining Geologist, Los Angeles; Pope Yeatman, Mining Engineer, New York; C. K. Leith (Chairman), Professor of Geology, University of Wisconsin.

Where backward countries possess important mineral supplies needed by the world we can see no escape from the conclusion, whatever the ethical merits of the case, that demand will make itself felt through political pressure of other countries. In such cases we favor joint action by governments to secure equal opportunities for all nationals. If circumstances require that pressure be brought by one government the end to be sought should be the opening up of the territory not only to the government bringing the pressure for its exclusive benefit, but to all nationals. Disregard of this principle has been the cause of much international friction.

* * *

To accomplish the purpose outlined in preceding paragraphs, we urge that the United States Government maintain closer touch than heretofore with American activities in foreign mineral fields.

* * *

In cases of international dispute, and

there are many such relating to minerals, we further suggest the desirability of utilizing international fact-finding committees to ascertain and present the essential facts. . . .

The following rules were proposed by the League of Free Nations Association, of New York:¹³⁸

(a) No state shall accord to one neighbor privileges not accorded to others—this principle to apply to the purchase of raw material as well as to access to markets.

(b) States exercising authority in non self-governing territories shall not exercise that power as a means of securing a privileged economic position for their own nationals; economic opportunity in such territories shall be open to all peoples on equal terms, the peoples of nations possessing no such territories being in the same position economically as those that possess great subject empires. Investments and concessions in backward countries should be placed under international control.

CHAPTER XI

POPULATION, MIGRATIONS AND RACE RIVALRY

Food¹³⁹ and raw material policies are not separable from the larger questions of population, migrations and race rivalry. John Stuart Mill was pessimistic concerning the future of the human race. He said:¹⁴⁰

In all countries which have passed beyond a very early stage in the progress of agriculture, every increase in the demand for food, occasioned by increased population, will always, unless there is a simultaneous improvement in production, diminish the share which on a fair division would fall

¹³⁸ Department of the Interior, *International Control of Minerals*, by C. K. Leith, p. 10a.

¹³⁹ See pages 201 and 191 and 210. *European Agricultural Policies*, Dr. F. M. Surface, Department of Commerce; *Relation of Population Growth and Land Supply to the Future Foreign Trade Policy of the U. S.*, Dr. L. C. Gray, Department of Agriculture; *Discussions on Agricultural Policies*, by W. S. Culbertson.

¹⁴⁰ Mill, John Stuart: *Political Economy*, Chapter X.

to each individual. An increased production, in default of unoccupied tracts of fertile land, or of fresh improvements tending to cheapen commodities, can never be obtained but by increasing the labor in more than the same proportion. The population must either work harder, or eat less, or obtain their usual food by sacrificing a part of their other customary comforts.

. . . a greater number of people cannot, in any given state of civilization, be collectively so well provided for as a smaller. The niggardliness of nature, not the injustice of society, is the cause of the penalty attached to overpopulation. . . . It is in vain to say that all mouths which the increase of mankind calls into existence brings with them hands. The new mouths require as much food as the old ones, and the hands do not produce as much.

This economic issue lies at the basis of humanity's struggle upward. We can very profitably pause at such a

point and consider whence we have come and whither we are going. The 19th century gave Western civilization vast material wealth. Machinery and power applied to raw materials increased the goods available to man. Transportation, new lands, and scientific methods in agriculture increased the food supply. Population increased in Western nations. At the same time population in Asia continued to press upon the economic resources¹⁴¹ even as it has since the desert peoples of Central Asia sought better economic conditions in the Tigris, Euphrates and Ganges valleys. Shall the peoples of Asia today continue to be decimated by underfeeding, disease and famine; shall they migrate, or shall Western industry and agriculture be introduced as a means of pushing further off the margin of subsistence?

CAUSES OF MIGRATIONS

For convenience the term overpopulation may be substituted for "pressure of population upon resources" and overpopulation may be defined as that condition which leads to emigration on a considerable scale. This definition emphasizes the *relative* character of overpopulation, for it is relative not only to the resources of the country in question, to the state of their development, and to the extent of the industries supplied by foreign materials, but it is relative also to the abundance and accessibility of better opportunities in other lands. Egypt (the inhabited portion), Malta, Bermuda and Barbados have upwards of 1,000 persons to the square mile, while Ireland at the time of the Great Famine had only about one fourth that num-

ber; but the former countries continue to increase in population, while Ireland's population has decreased continually (though more and more slowly) for the last seventy years.

No clear line can be drawn between emigration due to pressure from within and emigration due to attractions from without, but the distinction is superfluous, since the effects depend upon the character and quantity of the emigration rather than upon the causes which produce it.

It follows from the relative character of overpopulation that it may be due (1) to no more vital cause than the opening or developing of other lands in which labor and capital have hopes of greater rewards, together with comparative ease of access and a widespread knowledge of these conditions; or it may be due (2) to an increase of population outstripping the development of the country's resources, or at least to an increase relatively more rapid than the development of certain other accessible countries; or (3) to the exhaustion or destruction of the country's resources; or (4) to economic changes in other parts of the world which prevent the country from continuing to obtain necessary supplies or sufficient markets. These causes may, of course, operate in combination.

The first cause may be illustrated from the history of Iowa. That prosperous state had in 1900 only forty persons to the square mile, but it was overpopulated in comparison with the easily accessible and well-advertised lands of Western Canada, and its population slightly decreased in the following decade. The second cause (as well as the first) may be illustrated from the rural sections of many portions of the world, where especially during the spread of the use of machinery, the continued development of the agricultural resources has required

¹⁴¹ See page 259. *Economic Pressure as a Cause of the Revolt of the Asiatic Peoples Against Occidental Exploitation*. Mr. C. C. Batchelder, recently Trade Commissioner of Department of Commerce in India.

little or no increase in the supply of labor, and whence, therefore, there has been a steady stream of migration to the cities or to undeveloped agricultural lands. The third cause—the exhaustion or destruction of a country's resources—may be due to the working out of mineral deposits, the exhaustion of the fertility of the soil by poor methods of agriculture or to the encroachment of deserts.¹⁴² The British have been seriously concerned over the eventual exhaustion of their coal deposits, and some Americans, over their forests and their oil supplies. It is believed by many that the Sahara is encroaching on French West Africa and Nigeria, and the Kalahari Desert on British South Africa.

Emigration from one country may be the result of economic changes in other countries in at least three ways. The opening or development of better resources of industries may make the continued use of the old unprofitable.¹⁴³ The foreign markets upon which some part of the population of the country depends for its livelihood may be cut off through tariff barriers and other forms of state aid to industries in other countries, or it may be destroyed through the impoverishment of its customers by war or other causes or because of social movements such as that which has resulted in restricting world

markets for alcoholic beverages.¹⁴⁴ Finally, a country may be adversely affected by a failure of the foreign supplies necessary for its industries. This may happen through war (*e.g.*, the cutting off of Europe's supply of cotton during the Civil War) or from natural causes, or by embargoes or other forms of state action. Measures of this sort are a part of the regular equipment of modern wars and have also shown themselves in the period since the war to a greater extent than previously in times of peace. The cutting off of foreign supplies by state action may be absolute as by an embargo, or partial, as by a limitation of quantity, or through some licensing system or the imposition of some condition or tariff rate.

REASONS FOR TERRITORIAL EXPANSION

The small extent to which overpopulation was the cause of the partition of Africa, Oceania, and part of Asia in the last fifty years may be seen by a brief mention of the countries which made acquisitions. Great Britain and France acquired four to five million square miles apiece. Comparatively small areas of this were adapted to colonization by whites, while Great Britain already possessed

¹⁴² In *The Pulse of Asia* (1907), E. Huntington attempts to explain the major movements of world history by periodic centuries of desiccation in Central Asia.

¹⁴³ *E.g.*, the agricultural lands of Europe suffered greatly when the lands of the western hemisphere became accessible; the rubber of the Malaysian estates has nearly killed the collection of wild rubber in Africa and Brazil; and the development of Chinese iron and coal resources is likely to affect some of the world's greatest industries as now organized. The difficulties experienced by the gold mines of South Africa for several years after the war presented a peculiar case in which the unprofitableness was the result of the inflation of European currencies.

¹⁴⁴ The effects of the present poverty of Europe are well known. The wave of prohibition, however, throughout the world has produced serious difficulties for the wine growers of Europe, and the recent tariff war between Portugal and Norway was due directly to the prohibition legislation of the latter. Many illustrations might be given from the protectionist movement of the last century of the slowing down of an industry, if not its recession, through the erection of tariff barriers and the development of competing industries elsewhere; but the development of rival industries requires time, and, since the home market is usually the major one and only one foreign market at a time is closed, it might be difficult to cite cases where protective tariffs had led directly to emigration from the countries against which they were directed.

millions of square miles of temperate regions which were practically uninhabited, and France had no surplus population which required an outlet. Germany and Belgium acquired about one million square miles each. The acquisition of the Congo was the work of Leopold personally with no popular support except what was drummed up to aid the King. He regarded the Congo as a commercial outlet and a field of exploitation and not as a colony for Belgian settlers. After forty years the number of Belgians was (January, 1920) 3,588.

In Germany alone, of the countries which made the major acquisitions, did overpopulation play an important part in the discussion of colonial questions. The German possessions, except Samoa and Kiaochow, were acquired in the eighties when the emigration from Germany was at its maximum and was causing serious concern. There was much talk of the loss to the Fatherland of the hundreds of thousands who were leaving to settle under other flags, and public opinion undoubtedly supported the colonial policy in large degree because it regarded the colonies as potential lands of German Kultur. But Bismarck was opposed to aiding emigration even to German colonies, and was influenced by many other motives in yielding to public opinion in the matter of acquiring overseas possessions. At the outbreak of the World War, there was less than 30,000 whites in the German colonies including the German garrisons.

Italy, Spain and the United States made minor acquisitions in the period under discussion. Overpopulation performed no part in the annexation of Hawaii, Porto Rico and the Philippines. In Italy and Spain efforts have been made to direct emigration to Eritrea and Libia and to Spanish Morocco; but a consideration of the circumstances in

which these territories were acquired leads to the conclusion that certainly in the case of Spain, and probably in the case of Italy, their acquisitions should not be interpreted as an expression of the need of population for an outlet. In any event the territory acquired has not actually served as an outlet.

In the period of 1875-1914 European powers and the United States acquired territory for strategic reasons, as a solution to frontier difficulties, because of the ambitions of statesmen and soldiers, because of the desire to control markets for manufactured goods and to prevent other powers from seizing and exploiting them, and in order to procure raw materials, to safeguard investments, and to obtain concessions. There were few, if any, cases in which new territory was annexed as a direct result of the movement of population into that territory. The wars of the period were in the Balkan States, and between Russia and Turkey, Japan and China, the United States and Spain, Great Britain and the Boer Republics, Russia and Japan, and Italy and Turkey. These wars all resulted in territorial changes and most of them might be denominated colonial wars, but none of them was primarily a war for the acquisition of territory for the expansion of a crowded population.

OVERPOPULATION OF EUROPE NOT APT TO CAUSE INTERNATIONAL FRICTION

An examination of emigration figures discloses immediately that practically all of Europe and a large part of Asia¹⁴⁵ are overpopulated in comparison with

¹⁴⁵ In the case of Asia a relatively smaller emigration is taken to show overpopulation, partly because various parts of the world are closed to Asiatics, partly because of the ignorance of the people in regard to conditions outside, and partly because so many millions are so obviously at the edge of the minimum of subsistence.

other parts of the world. Pre-war figures show considerable emigration from all countries of Europe, except France and Germany. The disorganization of German industries will probably renew the streams of emigration from that country. The overpopulation of Europe, however, is not apt to result in serious controversies or conflicts. Outside of the British self-governing Dominions and the French North African possessions there are few colonial areas of consequence suited for colonization by whites, and in so far as pressure of population is the cause of international difficulties these difficulties are not more apt to arise in colonial possessions than in independent countries. Emigration from Europe is largely to the United States and parts of South America. In these countries large numbers of immigrants already reside who interpret the country to the newcomers and thus lessen the friction. The countries to which the emigrants go in greatest numbers have stable governments, rendering improbable many classes of disorders which might result in controversies.

ORIENTAL OVERPOPULATION DIFFERENT

The problem presented by India and China differs in no less than six respects from that presented by Europe:

1 The *standards of living* in Asia are much lower than in Europe.

2 The *masses of population* are much greater.

3 The *racial differences* between Orientals and Occidentals lead to greater hostility against the intrusion of the former among the latter than does that of foreigners of the same races.¹⁴⁶

¹⁴⁶ The Caucasian element among the Hindus has been exaggerated; in any case it is popularly ignored and, therefore, has no bearing on the question.

4 The *ancestor worship and child marriage* of the Orient tend to prevent a decrease in the birth rate and consequently an increase in the standard of living; and the adoption of Western sanitation and medicine will cut down the death rate and tend to lead to a more rapid increase of the population.¹⁴⁷

5 India, and, to a smaller extent, China, can supply vast numbers of immigrants who can *live in tropical climates*.

6 Indians and Chinese are already practically excluded from some of the most desirable parts of the earth.¹⁴⁸

The lowness of the Asiatic standard of living makes it economically undesirable and politically impossible to admit Oriental laborers to Occidental countries in the same numbers as European immigrants. But even if migration were permitted it would not solve the difficulty. The mass of the Asiatic populations and their low standard, taken in connection with the tendency which Mill noted for the lower classes to multiply up to the limit of the existing standard, lead to

¹⁴⁷ There is, however, some doubt that Oriental populations have continuously increased in previous centuries, or that ancestor worship will maintain itself in the face of rationalism and Neo-Malthusianism, or that the practical application of sanitation and medicine will spread more rapidly than higher standards of living. The population of India increased between 1911 and 1921 only from 315 millions to 319 millions, or less than 1 per cent. The experience of Hawaii, especially, may be cited to show that Orientals do adopt Western standards of living when the opportunity presents itself. It will be seen, however, that the points made in this footnote relate rather to the future operation of the fourth difference enumerated than to its immediate effectiveness.

¹⁴⁸ The contrast in this respect is not so great as before the war; for instance, Canada has prohibited the immigration of illiterates, and the United States excludes great numbers by its quota law. See an Italian complaint of action in Brazil and elsewhere, in *The Economic Review of the World*, November 4, 1921.

the conclusion that continued emigration, even in numbers much greater than those which have ever left Europe, would probably not produce a perceptible effect in Asia. If for a decade the world's passenger ships should carry emigrants from Asia, the transfer of population might produce serious economic and social consequences in the countries which received these millions of Asiatics; but in Asia the effects would probably be indiscernible, since any lessening of the pressure would be immediately taken up by an increase of the population—an increase which would not (and could not) have taken place otherwise. The pressure of Asia upon its resources cannot be cured by

ing greater difficulties in the future.

Asiatics are excluded today from the United States, from the British self-governing Dominions including such tropical areas as northern Australia, Papua and New Guinea, from Java, from the Philippines and Hawaii and from certain other areas. The only temperate regions still open to Asiatic migration are Northern Asia and the comparatively small part of South America which is in the temperate zone.

The tropical or semi-tropical regions to which Asiatics have already migrated either voluntarily or as recruited laborers, and which are still open to them, include:

	AREA IN SQUARE MILES	TOTAL POPULATION	POPULATION PER SQUARE MILE	NON-NATIVE ASIATICS
Certain Caribbean countries	140,000	800,000	6	297,000
Most of Oceania	800,000	19,000,000	24	500,000
Southeastern Asia	550,000	29,000,000	53	1,600,000
Southwestern Asia	1,000,000	18,000,000	18	.....
East Africa	1,300,000	18,000,000	14	43,000
Approximate totals	3,800,000	85,000,000	22	2,500,000

transferring its millions elsewhere. The opening of the United States and other countries to Asiatics would prove a futile palliative in the solution of a problem which requires an immense educational effort and a change of habit in Asia's hundreds of millions.

The capacity of the Indians and Chinese to settle in the tropics widens the area of the territory in which Asiatic immigration is or may become a problem, but this very fact may aid in the solution of the problem in temperate regions. Similarly, the fact that Asiatics have already been excluded from many parts of the earth, while it has already caused difficulties, may prove the means of avoid-

These regions already contain some $2\frac{1}{2}$ millions of non-native Asiatics. But as the total area is greater than that of India and China proper combined (3,800,000 compared to 3,300,000 square miles) and the average density of the existing population is only one ninth as great (22 as compared to about 200 to the square mile), these territories might obviously absorb a large fraction of the populations of India and China. In certain small areas of the territories under discussion the native population is known to have decreased in recent decades, and throughout the region as a whole plantation laborers are in demand.

POLICIES AS TO ASIATIC IMMIGRATION

Of the various policies which are or might be pursued in regard to Asiatic immigration three may be briefly discussed—recruiting with unrestricted immigration, regulation and prohibition or exclusion.

1. Recruiting

Recruiting is generally the policy of plantation owners or mine owners and may be illustrated from the history of South Africa, Fiji, Hawaii and British Guiana. It introduces Asiatics sooner and in larger numbers than they would have come voluntarily and to it may be attributed the presence of Asiatics in the more distant places such as the Caribbean countries, Fiji and South Africa. After they have become familiar with the country and its industries the Asiatics become permanent settlers and currents of immigration are produced. Recruiting followed by unrestricted immigration or even the latter alone in the nearer regions where the Asiatics have long been present will almost inevitably give the predominance in point of numbers to the East Indians and Chinese. This predominance of Indians and Chinese is already seen in the Straits Settlements and Mauritius, and in most of the other East African and Oceanic territories they outnumber the whites. With the increasing political consciousness and power of Indians and Chinese, predominance in numbers must eventually raise the question of the passing of political control from whites to Asiatics.¹⁴⁹

¹⁴⁹ If India attains a practical independence, it is not unlikely that it will demand control over or some form of coöperation with Mauritius, the Seychelles, the Fiji Islands, and other territories in which the number of Indians greatly exceeds that of the whites. Unless self-determination is to be denied to Asiatics, the only means of

2. Regulation

The purpose of regulation might be to limit the number of Asiatics who might settle in a territory, but the purpose is usually the prevention of their permanent settlement by providing for their return to their native lands either at the close of a period of indenture or after a period otherwise defined. The advantages of this policy are that it allows the importation of a labor supply for the development of the country, or it allows the voluntary coöperation of Asiatics in trade and development, as in the Philippines. It may be defended as preserving the rights of the native populations and safeguarding them from excessive competition, while from the point of view of Indians and Chinese it is less harsh than total exclusion. On the other hand, it advertises the country among Asiatics and stimulates their desire to take part in exploiting its wealth, and thus possibly tends to arouse an even greater dissatisfaction than does a policy of total exclusion.

3. Prohibition

Prohibition¹⁵⁰ is the policy of countries in control of a settled population as distinguished from territories exploited by the plantation system. It prevents any appreciable admixture of Asiatics in the population if applied early enough as in New Zealand; and if

preventing this result would seem to be to Europeanize the Indians in these territories as rapidly as possible and develop in them a sentiment of nationality distinct from that of their forebears on the mainland. The attitude of the colonial official and of the European planter is usually not conducive to this result. It may be surmised that the real reason for the detachment of Aden from the Presidency of Bombay was to preserve it from the Empire, when India becomes independent.

¹⁵⁰ No absolute prohibitions are in force against Asiatics as such, for scholars, merchants, women, and others are allowed to enter and reside in the countries whose exclusion laws are most severe.

combined with other measures for removing those already present, it may achieve a similar result. The latter is apparently the policy of South Africa, though it is not expected to obtain the repatriation of the whole Indian population of South Africa. The disadvantage of prohibition or exclusion is its harshness, which is not unnaturally resented by Asiatics. In territories already densely populated, such as Java, or which are more or less rapidly filling with white populations as California and South Africa, these populations not unnaturally feel that the policy of exclusion is reasonable. But as applied to northern Australia and other unoccupied territories the Asiatics have reason to feel perhaps not less strongly that the policy is selfish and unreasonable. The Australians seem to feel the force of this point of view and by constant talk of the necessity of filling their unoccupied territory lest their right to keep it be challenged, virtually encourage the Asiatics to demand access to these territories. And as these empty regions are among the closest, both to India and to China, it is not improbable that the final "showdown" as to the power of the white man to reserve to himself abundance of territory, while keeping the Asiatic crowded and confined, may take place in relation to these territories.

THE POLICY OF THE UNITED STATES

The details of America's policy toward Asiatic immigration is not relevant to this discussion. In an early treaty (1868) with China the United States Government recognized the right of unrestricted movement of peoples in these words:

Art. V. The United States of America and the Emperor of China cordially recognize the inherent and inalienable right of man to change his home and allegiance, and also the mutual advantage of the free migra-

tion and emigration of their citizens and subjects respectively from one country to the other for purposes of curiosity, of trade or as permanent residents. The high contracting parties therefore join in reprobating any other than an entirely voluntary emigration for these purposes. . . .¹⁵¹

But when the movement of Eastern peoples across the Pacific became a practical question, our exclusion laws were passed. The entrance of Japanese into the United States is governed by a "gentleman's agreement," under which Japan exercises a control in accordance with the policy of the United States through the issuance of passports.

The Philippine Islands exclude Chinese as permanent residents, but there are thousands of Chinese in the Islands temporarily and others acquired the right of residence before the exclusion act was passed. Their total number is 55,200.¹⁵² The Chinese are substantially all middlemen and merchants, never laborers or promoters, and they have in their hands a large part of the trade both foreign and domestic.¹⁵³ There are also in the Philippines 12,600 Japanese and some large enterprises are controlled by them. Japanese capital invested in the Islands was estimated by the Governor-General at about 66 million dollars out of a total of 900 millions invested by nationals of Great Britain, the United States, Germany and Japan.¹⁵⁴ As long as the Philippine Islands are possessions of the United States it may be assumed

¹⁵¹ Malloy: *Treaties, Conventions, International Acts, Protocols and Agreements Between the United States and Other Powers, 1776-1909*, Vol. 1, p. 235.

¹⁵² The figures for the number of Chinese and Japanese now in the Philippines are taken from the Report of the Special Mission on Investigation to the Philippine Islands, 1921. The report points out that 3,123 Chinese filed income tax returns and only 3,667 Filipinos.

¹⁵³ Report of the Governor-General, 1919, pp. 10, 19.

¹⁵⁴ *Ibid.*, p. 10.

that no overwhelming wave of Asiatic immigration will be allowed. The density of population—86 per square mile—is already greater than that of any other part of Oceania except Java.

THE POLICY OF THE BRITISH DOMINIONS

Asiatics are more or less effectively excluded from the four great self-governing British Dominions, as follows: Australia and New Zealand require applicants for admission to pass a test in the writing of a European language; New Zealand also requires an entrance fee of £100 and Australia has other restrictions, *e.g.*, relative to contract labor. Since 1904 Canada has required a payment of \$500, and from December, 1913, successive Orders-in-Council have prohibited the landing in British Columbia of skilled and unskilled artisans.¹⁵⁵ In 1904 South Africa totally excluded adult male Chinese and in 1913 extended the prohibition to all male Asiatics over sixteen years of age.¹⁵⁶ The Indian Government, resenting the treatment of Indians in South Africa, had already prohibited the recruiting of Indian laborers and the last shipment had left for South Africa in June, 1911.

Indians were introduced into South Africa in 1860–66 and in 1874–1911, and the census of 1911 showed that 64,000 out of a total of 150,000 had been born in South Africa; but the Indian Commission recommended (1920) the repatriation of a large part of the total number. Five sixths of the Asiatics in South Africa are in Natal, where there were in 1911, 133,000 Indians and only 88,000 whites; but since 1911 the number of Indians has been decreasing. Except in South

Africa small numbers—up to a few thousand a year—of Asiatics are in various ways admitted to the different Dominions.

Kenya and Uganda, Tanganyika, Nyasaland, Mozambique and Madagascar on the East Coast of Africa present an area of some 1,300,000 square miles inhabited by only about 18 million people or 14 to the square mile. Most of this territory is in the tropics where, except for limited areas of high plateaus, it is unsuited for white settlers. Indian immigrants have a foothold in all these territories, for nearly all of the Asiatics are East Indians. They are largely peddlers and small traders and most of the retail trade of the country is in their hands.

The peoples of India regard the race question in Kenya as a test case. The *Round Table* says:¹⁵⁷

The Indian regards Kenya Colony as a test case by which to prove the sincerity of his admission to the rights of Empire citizenship which were, he points out, admitted by the Imperial Conference in 1921.

In this connection, Article VII of the British Mandate for Tanganyika is pertinent. It reads:¹⁵⁸

The Mandatory shall secure to all nationals of States Members of the League of Nations the same rights as are enjoyed in the territory by his own nationals in respect of entry into and residence in the territory, the protection afforded to their person and property, the acquisition of property, movable and immovable, and the exercise of their profession or trade, subject only to the requirements of public order, and on condition of compliance with the local law.

The real issue in Kenya is not primarily between the whites and the

¹⁵⁵ Canada Yearbook, 1915, p. 110; 1919, p. 122.

¹⁵⁶ Official Yearbook of South Africa, 1918, p. 186.

¹⁵⁷ *Round Table* (London), June, 1923, p. 507. See resolution of Imperial War Conference, 1918, on Restriction of Immigration.

¹⁵⁸ *League of Nations Official Journal*, 3rd year, No. 8 (Part II), August, 1922, p. 867.

Asiatics, but between these two groups on the one side and the native African on the other.

The future importance of the exclusion of Asiatics from northern Australia transcends all other race issues. Sir Joseph Cook, Australian High Commissioner in England (former prime minister of Australia), stated in an interview in London, quoted in the *Christian Science Monitor* (Boston) of February 20, 1922: "We mean to keep Australia white and for preference would have a white British Australia, although we welcome all good citizens from any white country." This statement is in line with previous pronouncements by responsible Australian political and governmental authorities.

The only important politician who has opposed this policy, at least within recent years, is H. N. Barwell, premier of South Australia, who would admit Asiatics to the tropical Northern Territory, which formerly was a part of South Australia but is now a separate territory administered by the Federal Government. Only 4,000 whites live in the Northern Territory, which has an area of 523,000 square miles. It is believed by most Australians that the Northern Territory is not and never will be a "white man's country," and Premier Barwell proposes to allow Asiatic immigration into that territory—perhaps also into northern Queensland and into the tropical section of Western Australia, but to permit none to come south of a certain line. Few leaders agree with him as to the feasibility of keeping Asiatics, if admitted, within such bounds, and Mr. Barwell himself as recently as January 10, 1922, declared his opposition to allowing any Asiatics in the temperate parts of Australia.

Each of the several colonies forming the Australian Commonwealth had prohibited or restricted immigration of

Asiatics. These laws were superseded after the Federation by the commonwealth immigration law of 1901, amended in 1905, 1908, 1910 and 1912. The federal law does not expressly exclude Asiatics. It excludes criminals, persons suffering from unwholesome diseases, etc., and "any person who fails to pass the dictation test, that is to say, who fails to write out not less than 50 words of a language prescribed by regulation when dictated to him by an officer administering the Act." It is under this last clause, which gives the administering officer wide discretion, that Asiatics are kept out of Australia. It is officially stated¹⁵⁹ that in general practice the dictation test is not imposed upon persons of European race.

Official commonwealth statistics show that at the time of the last census 98 per cent of the total population of Australia has been born either in Australia or in the United Kingdom. The largest non-British element in the population was German: three fourths of one per cent.

Sir James Mitchell, premier of Western Australia, in a speech at Bradford, England, May 25, 1922, quoted in the *Daily Mail* of May 26, said that, while Australia would always do her utmost in an emergency, she could not hold the country with five and a half million people and must have England's assistance in increasing her population in the next twenty or thirty years. Increase of population in Australia, by immigration, has averaged in the past five years only about 20,000 per annum (excess of arrivals over departures). Increase by excess of births over deaths has averaged about 75,000 per annum. In face of the expansion of Asiatic populations, deep-seated fear of Asiatic aggression agitates all Australian statesmen, who feel that

¹⁵⁹ See Commonwealth Yearbook No. 12, 1919, p. 1167.

without the protection of the British Navy the danger might become immediate. They appear to be determined to oppose in every possible manner any such "peaceful penetration" as might result from any relaxation of the present policy of rigorous exclusion of Asiatics.

FACTORS IN THE ASIATIC ISSUE

Exclusion laws are the product of a situation which should have the thoughtful, earnest consideration of the people of both the East and the West. They dam the tide; they do not touch the issue in the background. Factors in the issue are:

(a) Population presses on the resources of a country and people instinctively are driven to seek better feeding places. When the margin of subsistence is reached, as it has been in many parts of Asia, thousands die from disease and famine but, if knowledge of better opportunities in other lands is available, the desire to migrate arises, and sometimes great masses of people move blindly.

(b) When the Asiatic tries to migrate, he finds that the white race has signs up in certain valuable areas telling him to keep off. As Asiatic peoples become more conscious of their nationality, this policy of the white race is resented not only by individuals but by whole races. The fact that parts of Asia and South America in the temperate zone and large areas in the tropics are open to Asiatics does not greatly lessen this resentment. But mere migration is not an ultimate solution of the problem.

(c) Asiatic resentment is not only against laws and regulations restricting the migration of Asiatics but against Occidental commercial and financial methods and against Occidental ideas. Asiatics by no means admit the superiority of our civilization over theirs. Nor are they in most cases anxious to follow the meth-

ods of the West. The most thoughtful of them resent our materialistic philosophy, our standardized existence, and the very conception of life in the West.¹⁶⁰

(d) Nevertheless, the industrialization of the East under the leadership of the West goes forward. Western capital and commerce are introducing capitalistic methods into the Eastern countries. Great quantities of machinery—textile, electrical, and otherwise—are being exported to Asia. Japan has taken over completely the business methods and the material structure of our Western economic life. In India the cotton manufacturing industry is gradually taking from Lancashire its markets.

(e) In the next few decades the forces in Asia now operating at times at cross-purposes and without direction may converge. They are: the overwhelming man power of Asiatic countries, the growing consciousness of nationality and unity among Asiatic peoples, and the adoption of the material methods and concepts of Western civilization. Suppose these forces do converge and Asia as a whole adopts, as Japan has done, the imperialistic methods of the West? Exclusion laws and regulations will then be flimsy barriers.

Before this time comes we shall be wise if we consider, not only for our own but for Asia's good, what our material civilization really leads to and to what extent it should be thrust upon the Asiatics.

SOME CONCLUSIONS

Our material civilization is not above criticism. We should not insist upon other peoples in every quarter of the earth accepting it. Our economic progress has, it is true, achieved much. Nothing will be gained by turning back. We must get on. The question is

¹⁶⁰ Peffer, Nathaniel: "The Real Revolt against Civilization." *The Century Magazine*, February, 1923.

whither? No simple formula will solve this problem—as complex as human society itself. But a few conclusions are obvious. Western nations should stop wasting the lives and wealth of their citizens in internecine strife. The white race is exhausting its vitality, morale, and material goods over such issues as the Ruhr, and the Eastern peoples not only smile at our professions of Christianity but bide their time. Western peoples should also begin to realize that they can learn something from the people of the East. We do not live by bread alone. Life is more than meat and the body than raiment. We can begin to solve the great issues

between the East and the West only when we develop toward the East an understanding and a sympathetic mind.

Then there may be a way out. The problem in the East is how to give those teeming millions in some degree the material comforts which we enjoy and not at the same time destroy the spiritual verities of their civilization. The problem in the West is to prevent our material civilization from breaking down in quarrels among ourselves or in struggle with the peoples of Asia and to benefit from the art, the calm reserve, and spiritual understanding of the civilization of the East.

CHAPTER XII

THE LIMITS OF NATIONALISM

Imperialism is the overseas economic expression of Western civilization. It has brought into existence the two great conflicts which constitute the major problems of the modern world. The first is the conflict between industrialized nations for the control of markets and sources of raw materials, for opportunities to invest capital, for the facilities of international communication, for colonies, and for spheres of influence in economically backward areas of the earth. The second conflict is between the peoples of the Occident and of the Orient. The former rests on the conception that a nation under modern conditions cannot be a first-class power unless it has economic strength. The latter arises from the resentment of Asiatic peoples against Occidental exploitation and from the economic pressure of population on the resources of Asia.

THE FACTS OF IMPERIALISM

In considering imperialism it is highly important first of all to under-

stand just what this movement is. Little is gained by indiscriminating condemnation. The methods of imperialism have served, one must admit, in many ways to develop the world economically. At this stage of the world's progress probably no better methods are possible. The choice is between employing them or standing still. Indeed, it is not a choice at all, for forces are operating which inevitably bring about the economic expansion of those nations which have adopted the capitalistic methods of production and distribution. Upon this expansion follow new issues and results.

No progress in comprehending modern industrial problems can be made by mere denunciation of imperialism as buccaneering. Imperialistic methods undoubtedly have been misused. Private enterprises have been employed as smokescreens behind which aggressive political policies have been furthered. Such use of commercial and financial power should be condemned unqualifiedly, but deliberate economic pene-

tration is not to be confused with legitimate business enterprises in regions where the government is weak and resources are relatively undeveloped and where it is desirable for the home government to retain some oversight of the activities of its nationals and to see that they get fair play. Complications may, in this manner, be avoided and a semblance of regulation introduced into international relations which otherwise would be left largely in a state of anarchy. No useful purpose, it should be repeated, is served by general denunciations of foreign trade and finance. It is incumbent on those who do not like them to point out constructively the way to some better method for getting on.

Moreover, we cannot understand our world by continually trying to explain away economic rivalry or by dressing up modern imperialistic policies in the robes of disinterested justice and liberty. Surely Sir John Cadman, President of the Institute of Mining Engineers of Great Britain, does not expect full acceptance of his statement that the "principal object" of the San Remo oil agreement "was to secure an arrangement that would be of lasting benefit to the Arab state when constituted."¹⁶¹ We should be candid with ourselves. Nations as such, as distinguished from self-sacrificing individuals and private humanitarian organizations, do not engage in altruistic enterprises in parts of the world where they neither have nor seek material interest. The United States is interested in the Caribbean countries and in the Panama Canal because complications there concern directly our prosperity and our security. Great Britain is interested in the Near East because she desires to safeguard her communications with India and with other markets

and her access to the sources of raw materials, including petroleum, in the Middle East. The Mesopotamian campaign has even been described as "the one sound commercial enterprise of the World War."¹⁶²

These comments are not made either in defense or in condemnation of imperialism. We cannot, however, make any progress toward correcting the evils of existing international relations, or toward abolishing harmful imperialistic practices entirely if we continue, as the spokesmen of all nations do, to inject into the situation professions of fictitious morality. Once we get over the fright that the mere mention of imperialism occasions, and once we recognize that material factors among many others affect the policies of states, we shall be able to consider, with some prospect of success, measures to regulate international relations and to set up machinery which will assist in the adjustment of international disputes. Imperialism represents a stage in the world's economic development. It is not an end in itself. If it has failed to work in the modern world, constructive thinking must point the way to better methods for developing the world economically and for improving the material environment in which mankind shall live.

THE NATION IS THE BASIC UNIT

In devising a plan of coöperation by which the conflicting world forces of our present day may be reconciled it is not only necessary to face the hard and brutal facts of imperialism, but we must begin to build at the foundations and with the materials at hand. Any practical solution of the world's problems must begin with the recognition of the nation as the basic unit in our present civilization. Not only is the

¹⁶¹ Mining and Metallurgy (New York), February, 1922, p. 8.

¹⁶² Eckel, Edwin C.: *Coal, Iron and War*, (1920) p. 130.

sentiment of nationality a strong emotion which cannot be successfully defied, but even were it possible, it would be most unwise to defy it, for it is probably the soundest basis upon which to rest a plan for world peace. Proposals for the regulation of clashes of national interests have not infrequently been associated with a sentimentalism that casts reflections on many of the things which national loyalty holds sacred. While it may be useful to destroy some excrescences, for instance, by criticizing certain unintelligent features of patriotism or by showing how the emotions of a people are played upon by information wholly at variance with the facts, nevertheless patriotism—intelligent patriotism—is too deep-seated, too fundamental for us to attempt to build on any other foundation. Much that is valued and important in modern civilization has been developed and fostered by national governments. Around nations have gathered modern conceptions of law, literature and culture. Many problems of a local character can be handled only by national governments. The basic rights of individuals in most cases depend for their security upon national guarantees. Therefore, any plan of world development which leaves out of account the nation is certain to prove unworkable.

THE LIMITS OF NATIONALISM

The second truth to be recognized is that nations cannot successfully act alone in many clashes of national interests. Attempts of nations acting separately to control essentially world affairs have failed and always must fail. Nationalism is efficient and effective in some matters and up to a certain point. But beyond that, acting alone, it breaks down. In such cases the greater the effort toward a nationalistic solution the more inevitable becomes a resort to

arms, or at least to the bloodless imperialism of the stronger powers.

Illustrations will make this conclusion clearer. The tariff admittedly is a highly nationalistic measure. The heights of tariff rates are regarded as primarily of national, not international, concern. Nations, while at times giving consideration to the tariff as a means of promoting export trade, fix their tariffs chiefly in accordance with their own fiscal or industrial needs. Serious tariff wars, however, have resulted from a belief that the general non-discriminatory rates of one country were unnecessarily burdensome to another. High duties imposed by Italy on silk and woolen goods in 1887 were resented by France and led to a tariff war. Similarly, Switzerland refused to accept all the minimum rates fixed by France in her tariff of 1892 and a tariff war ensued as a result of which France was forced to modify her position. The rates in the American tariff of 1897 aroused resentment in Europe and led to threats of retaliation, although the rates were equally applicable to all countries. The retaliatory provisions in Section 3 of the American Tariff Act of 1890 and in Section 3 of the American Tariff Act of 1897 were based on the theory that if foreign rates (even though non-discriminatory) were deemed by the President to be "reciprocally unequal and unreasonable," the President might impose penalty duties on the imports into the United States from the offending country. Nationalism, then, even in the fixing of high tariff rates, has limits.

National control even more clearly reaches its limit when tariff *discriminations* are considered. In 1898 Great Britain terminated its treaty with the German *Zollverein* in which it guaranteed "national treatment" to German goods in its colonies, that is, the same

treatment as that accorded to British goods. In the same year Canada granted preferences to British goods and did not extend the preferences to Germany. A tariff war between Canada and Germany followed. Germany saw in Canadian preferences a first step toward a plan for British imperial commercial union detrimental to her trade. Canadian goods were declared subject to the highest or general tariff in Germany. When negotiations proved fruitless, Canada in 1903 imposed surtaxes on German goods. Finally, in 1910 the German Government yielded and granted Canada most-favored-nation treatment on the important items of Canada's export trade. This incident was one of the many which contributed to the conviction of Germany that her industry and trade would be secure only when backed by political power and control.

Under the modern capitalistic system industries produce for the purpose of selling at a profit. Markets are, therefore, of vital importance. They were to Germany and, as in the cases of the tariff war with Canada, the need of them shaped her commercial policy. We take for granted, when under the influence of nationalistic commercial aims, that our Government will promote foreign trade and afford security to our industries in foreign markets. The very nature of capitalistic production urges its leaders to search for new markets and for new sources of raw materials. Business men very often do not realize the nature of the problems in international trade created by the ordinary processes of buying and selling. They are, however, zealous in seeking government support in furthering their economic activities in foreign countries. Actual discrimination or exclusion or even the fear of such leads business groups in industrial countries

to seek the influence of their government in their behalf.

Under modern conditions not only does business profit by the support of governments but governments depend to a large extent for their power upon the economic resources which they or their nationals control. Japanese leaders, for example, when the modern development of that country began, quickly saw that they would not be able to obtain a place of equality in the world's councils unless they acquired the industrial equipment of Western nations. Japan accordingly built up her economic life and has endeavored to supplement the limitations of her island empire by a control of markets and sources of raw materials on the continent of Asia.

INTERNATIONAL RIVALRY

The production and distribution of raw materials constitute a most serious international problem. National power in dealing with similar domestic problems is regulative. It is directed toward restraining individual, corporate, and class action in the interests of order and fair dealing. Government is supported by public opinion in its effort to prevent private interests from exploiting the home market for excessive gain. But the attitude of government and people alike is strikingly different when these same private interests begin to operate overseas. They then have the approval, if not the active support, of their government and they are regarded as performing a patriotic service in holding foreign markets and securing all manner of economic advantages overseas. An interesting psychological study is afforded by contrasting the attitude of a government toward a large corporation's activities in the home market with its attitude towards the same corporation's activities in foreign countries. National

governments in international affairs, instead of restraining individual and corporate action, approve and even encourage it. A pertinent example is the American law exempting corporations engaged solely in export trade from the provisions of our anti-trust laws. National control, as a matter of fact, abdicates in a domain where, under the present anarchistic conditions of international relations, there is no other adequate control. Out of such a condition in which business is thus supported by national governments, develop the methods and the psychology of imperialism. Nations instinctively try to make themselves secure by controlling the foodstuffs and the raw materials essential to their existence. Consumers in the United States are agitated over the control of nitrates by a producers' combine in Chile and over the measures adopted by the British in the East to restrict the supply and raise the price of rubber. Consumers in Great Britain are equally agitated over their foreign supply of oil, and they have also made an organized effort to stimulate the production of raw cotton within the British Empire in order that they may be free from their dependence upon America for a supply of cotton. Serious complications are constantly arising today in the affairs of nations over commercial practices of governments or large aggregations of private wealth operating in international trade. Commercial competition frequently gains the support of governments and expresses itself in export taxes and restrictions, in preferential import and export tariffs, in government monopolies, in government aids to producers, such as the valorization schemes in force in the case of Ecuadorian cocoa and Brazilian coffee, and, finally, in the contest among financial groups in the leading nations for concessions for the exploitation of agri-

cultural, mineral, transportation and water power resources throughout the world.

Under the existing chaotic and anarchistic conditions governing international relations nations inevitably desire to control their own affairs commercially as well as politically. In this respect they feel and act in the same manner as the individuals composing them. A company like the United States Rubber Company invests capital in the East Indies in order to make more certain its supply of raw material. Such reaching out into other areas is common with commercial groups and illustrates a general desire of economic units to be self-sufficing. This desire reflects itself in national commercial policy and is emphasized by the ambition to surpass others and by the determination to be free from economic dependence in case of war. If the United States and the British Empire, rich in natural resources, become excited over their partial dependence upon each other and upon other outside sources for a few essential raw materials, what must be the feeling in countries like Germany, Japan and Italy which are to a large extent dependent upon outside sources for most of their essential raw materials? It is futile to argue, in the attempt to lessen fears and suspicions of countries in such a position, that the channels of international trade are usually open and that supplies of raw materials are normally available. The difficulty to be overcome is not any positive inability to get at almost all times the supplies needed, and at reasonable prices, but in the suspicion, perhaps groundless, that a foreign combination is gouging them, and the fear that materials under the control of another political power may be cut off. They want economic security and moreover a belief that they have it, and they form their policies

and direct their economic activities accordingly.

IMPERIALISM BREEDS SUSPICION

Fear and suspicion then are fundamental forces in determining the psychology of imperialism. Their causes are by no means imaginary. Many cases might be cited where nations have been held up for unreasonable prices or have been restricted in their efforts to obtain essential raw materials. The Great War itself demonstrated how really vital raw materials are in a long-drawn-out international struggle. However, fears and suspicions are not always justified, and one of the factors which contributes to misunderstanding and which requires consideration in any plan of international peace is the psychological element of unjustified fear and suspicion. Nations will use all kinds of imperialistic devices to secure themselves in their supplies of products essential to their industries so long as they have no international guarantee that supplies from the outside will be forthcoming under all conditions.

Imperial methods growing out of the rivalry of nations for economic advantages have during the last fifty years been a large factor in stimulating the building of armaments. International rivalry, it is true, is seldom a purely economic matter; personal, racial, and territorial factors have their influence. However, not only are economic questions in many cases obviously the direct cause of misunderstanding but frequently, if other issues are traced back to their sources, they are found to have their beginning in vital economic interests. If the causes for the building of armaments during the last half of the 19th century could be fully stated, it would appear that the larger percentage of these causes arose from the desire of peoples to

preserve or advance their material welfare.

ECONOMIC RIVALRIES AND THE GREAT WAR

The Great War was in a large measure the result of these economic rivalries and uncertainties and the resulting alarms and fears. Its background is the struggle for colonies and for spheres of influence—a movement which began in the eighties of the last century. An adequate statement of the causes of the war would require a survey of world history for a half century before 1914. It would include a discussion of the commercial growth of Great Britain and Germany, of the partition of Africa and the Pacific Islands, of the struggle for commercial advantages in China and in other parts of Asia, of complications in Egypt and Morocco, of political and economic currents and cross-currents in the Near and Middle East, and of the ambition of Russia and the rise of Japan. The emphasis placed on economic factors in the Treaty of Versailles itself discloses the extent to which such factors played a part in bringing about the war as well as the importance that should be attached to them in interpreting postwar national rivalries. Germany was deprived of the instruments of her commercial greatness. She lost her merchant ships and her submarine cables. Her private capital invested abroad was virtually confiscated by a provision that the allies would take over the investments and that the German Government would reimburse her dispossessed nationals. These are merely examples of the Treaty provisions directed toward crippling Germany economically. Behind the reparations contest today is the fear that Germany may become again a commercially strong nation. The occupation of the Ruhr is admitted by French statesmen

to be not primarily for the purpose of collecting reparations but for the purpose of giving France security. If France can control Lorraine iron and Ruhr coal and the steel industry which rests on these natural resources, she can control the Continent commercially and politically.

War in 1914 came after a period of drift and procrastination during which many of the public men of the rival countries spent their time little in analyzing the real issues but in deceiving themselves and the people with peace talk and with the discussion of questions which were not vital. A few *bona fide* attempts to be sure were made to reach an understanding. The British Government, for example, attempted to satisfy German colonial ambition by the proposed treaties relating to the Bagdad Railway¹⁸³ and the partition of the Portuguese colonies. But more often attention was centered upon non-essentials in order to obscure the real points at issue. Economic motives were disclaimed and governments attempted to justify themselves on the ground that they were furthering the cause of civilization.

NATIONAL SECURITY ONLY THROUGH INTERNATIONAL COÖPERATION

The catastrophe of the Great War might have been avoided had there been on the part of the statesmen of Europe courage in facing in time the real causes and a vision as to the remedy to apply. Each effort to avoid the vital issue, each half measure, each use of power by one or another of the states to hold or to gain advantage increased the complexity of the problem, and when an incident brought a crisis, it was too late to prevent a world war. A study of the causes of the catastrophe

¹⁸³ See page 185. *The Importance of the Near East in Problems of Raw Materials and Foodstuffs*. Dr. Edward M. Earle, Columbia University.

of 1914-1918 demonstrates that war may be avoided, or at least that the area of conflict between peoples may be greatly reduced, provided the issues are clearly stated in time and affirmatively dealt with (as they were not in Europe before 1914). It also shows that economic rivalry, unless regulated, leads to misunderstandings and to war. Not sentimentalism but security through coöperation will bring lasting peace.

But people unfortunately learn little from a world disaster, even one like the late war. The actors in the world drama change, but the old methods are retained. Fear and rivalry are unabated. The philosophy of force is frankly held and as frankly acted upon. Statesman supported by public opinion still apply

. . . the good old rule,
The simple plan,
That they should take who have the power
And they should keep who can.

They agree that national control by law and bargaining breaks down after a certain point is passed; but they say that at that point force must step in.

National defense by national means in a world dominated by such ideas is a necessity. Unless we achieve some measure of success in the establishing of international coöperation for the solution of the problems arising from imperialistic competition, we must rely for our ultimate solution (if it be a solution at all) upon the army and the navy. In world affairs today we do not think of Great Britain apart from the British Navy nor of France apart from the French Army. The army and the navy in the case of every great nation are vital parts of its national life.¹⁸⁴ They not only provide protec-

¹⁸⁴ See pages 268 and 275. *Raw Materials and Foodstuffs in the War Plans and Operations of the Army*, Col. W. P. Wooten, U. S. A.; *Raw Materials and Foodstuffs in the War Plans and Operations of the Navy*, Capt. F. H. Schofield, U. S. N.

tion in time of war but in time of peace they are silent protectors of commerce and of the larger economic interests of the nation, and they add prestige and support to negotiations and to diplomacy. This is only another way of saying that force holds a very large place in present-day international relations. Nations still, unfortunately, understand best the language of power. Armies and navies hold a vital place in our modern world which lacks organization to remove the causes which make for war. Armaments are inseparable from the policies which they support. Nations will not give up their armies and their navies until they are given security in some other form of guarantee. War and preparation for war are inevitable products of causes operating in an unregulated, anarchistic world. Peoples fight whenever they see no other way to security; they would rather submit to the hardships of war than to a condition which they believe to be worse.

ARMAMENTS OR INTERNATIONAL COÖPERATION

By the proper extension of conciliation and coöperation it is possible to create practically a warless world; but that will not be accomplished by those pacifists,—the worst of the enemies to peace,—who believe that war can be voted off the earth. Very probably among those who talk sentimentally about peace and internationalism would be found the first to denounce our Government if our coasts were left defenseless and as a result American territory were invaded. In the world as now constituted war is the final arbiter in many issues and if we are contented to leave international relations inadequately organized, any nation which hopes to maintain a position of respect and prestige in the world must prepare and perfect its war plans.

Too much effort today is made to shut our eyes to this fact. If our security depends upon the Army and the Navy, it is our duty to make them strong and to apply to their development all our knowledge and all our energy. National defense demands, for example, the assurance of an adequate supply of essential raw materials. They are necessary for the successful operation of the Army and the Navy. Provision must be made not only for a major product such as petroleum but for lesser products such as, for example, iodine, quinine and manganese. The vital importance of raw materials was emphasized by the experience of the late war. Two tons of steel, 0.2 tons of copper, and 0.15 tons of fixed nitrogen are required in modern war operations to keep one man in the field for a year. No nation for this reason can wage modern war successfully if it does not control within its own borders, or at least have uninterrupted access to, sources of essential materials, particularly iron and steel.

The public seldom realizes the amount of careful study and planning done by the leaders of our Army and our Navy. Every conceivable situation is canvassed and plans are made of the operations which would be necessary to meet any emergency which might arise. It may be said to be strange that in a reputed intelligent world leading minds of the nations should be engaged constantly on working out plans for organized killing and destruction. But this situation will not be corrected by merely reducing army and navy appropriations or by resolutions to abolish war. The roots of the problem lie further back and until we organize our world differently and until we remove the causes which contribute to war, it will continue to be a national duty to maintain our defensive forces at an adequate level.

INTERNATIONAL COÖPERATION THE BETTER WAY

Our imperialistically organized world has its defenders. Diplomacy and war, it is argued, do solve the world problems. But do they? Is imperialism with its necessity of using force as the means of finally settling international disputes to be accepted as final or is it merely a stage in man's slow progress toward a better ordering of his common life? There can be but one answer to these questions. The choice between force and international co-operation is more apparent than real. Nowhere does nationalism break down more disastrously than in its use of force. War and armaments do not provide security. They are not real solutions of world problems. Modern war is about to destroy the agency which it seeks to preserve, namely, the nation. It has become frightfully devastating. Science, intended to have a beneficial effect on the race, has been turned against mankind. Chemistry and physics in particular have contributed to the work of destruction and killing. Marvelous scientific and material progress during the last half century has made war a struggle between whole peoples, with the result that industry and commerce have become a part of the fighting machine. War plans now relate, not merely to plans of battle in the field, but to the organization of whole populations, men and women, young and old, for the purpose of waging the conflict.

When war was merely a contest between armies and armies; and between navies and navies; that is, the organized fighting forces, it was serious enough; but not at all in the same degree that it is today. Once a nation had to ask only whether it could win in the field; now it must ask what will be the cost of winning, and will

the victor be better off than the vanquished. Reparations, we have learned, are illusory in an exhausted world. A weaker nation may have strategic strength enough to win over the stronger power, because of the sheer exhaustion of the latter. Those who make war must look well ahead and consider the ultimate consequences of the results that follow upon war—the destruction of capital, the draining of funds from the country, the dislocation of the delicate credit machinery of the modern world, the depreciation of currency, the disorganization of markets, the destruction of purchasing power, and the lowering of the morale of whole peoples.

Our civilization is none too stable as it is, even without war. The higher man climbs in material progress the less stable his position becomes. He must continually exert his energy to build and reconstruct and to combat the naturally destructive forces that are constantly operating. When, however, man himself turns his energies to destruction, the end comes in sight, not only of the nation but of civilization itself. It will become evident, in the long run, if it be not evident now, that the world cannot stand the luxury of war.

INTERNATIONAL COÖPERATION PRESERVES NATIONALITY

Our civilization on its material side has outrun our social organization. The nation, still useful and effective for many purposes, fails at many points in its effort to meet the demands of our modern inter-related world. Extreme theories of national sovereignty, international anarchy, and war constitute an inseparable trio. We shall not love our nation less, or serve it less, if we understand its place in the family of nations, and if we realize that coöperation with other na-

tions is the way to solve essentially international questions. By adopting coöperation as the means of solving the problems of the world's commerce and finance, a nation gives up nothing that is really worth keeping and it takes the only course that in the long run will preserve the finest features of nationality. Where nationalism breaks down, therefore, international coöperation must begin. A direct participation by each nation in the solution of world problems is necessary for the very practical reason that it is the only way to save the nation as a unit of society. It is the only way to establish national security.

In international perhaps even more than in domestic matters then our social and political organization has not kept pace with our technical development. We live in a modern world of industry and natural science, but we live in an ancient world of ethical, social, and political standards. In some cases there exist laws which do

not do justice under these new economic conditions; in other cases there are phases of life to which the regulating effects of law do not extend. Catastrophe awaits civilization if we are not willing to develop social and political controls to regulate the great forces of our material civilization in order that they may operate more equitably. We are suffering today from a too rapid advance in science and in commercial and industrial organization without a corresponding advance in social and governmental organization. This is nowhere more true than in international relations. Industry and commerce have expanded, requiring materials and markets, and nations have attempted to conserve their interests, but international government has lagged behind. One of the great tasks of the century is to create an adequate international commercial law, and to perfect the machinery for administering and interpreting it.

CHAPTER XIII

THE BASIS OF NATIONAL SECURITY

National power and national security from one point of view appear to be synonymous conceptions. Make the nation powerful by industrial, commercial, financial and military measures and you appear to make the nation secure. But it has not worked out in that way. When one nation's economic life expands and its army and navy grow strong, surrounding nations, feeling insecure, attempt either singly or in combination to become a match for this growing state and it in turn, believing its position threatened, feels insecure. With several powerful nations seeking security by imperialistic measures the result has been uncertainty, instability and insecurity.

Permanent national security, then, must be sought not in temporary expedients like armaments but in the firm establishment of a set of principles to regulate the relations, particularly the economic relations, of states. Security will follow only when each state accepts these principles and permits them to be applied against its immediate interests in order to benefit from like concessions from other states. States will obtain, for example, commercial security and certainty only by offering to other states similar security and certainty. They find true national safety in limiting their individual power and strengthening the methods of international coöperation.

NATIONAL SAFETY THROUGH INTERNATIONAL ORGANIZATION

This conclusion is not mere theory, but a principle already recognizable in the negotiations of states. The tendency of national control to break down as soon as it attempts to deal with essentially international questions has resulted in the negotiation of thousands of international agreements which limit the action of nations. The significance of this world treaty structure, which is too often taken for granted, should be emphasized, for it is an admission of the principle that national security and prosperity do depend upon coöperation with—giving to and taking from—other nations. It has produced an international law of peace and a vast network of bilateral and multilateral treaties and international arrangements. Nations in thousands of treaties have, under the guidance of self-interest, limited their *power* in the interest of their security. The world-wide tendency since the days of mercantilism has been to modify the harsh, bitter competition of those times by commercial treaties and to introduce into international commercial dealings the principles of equality and fair dealing.

Improve Commercial Treaties

The first step in any program for world understanding should be the improvement of the world's commercial-treaty structure. Much remains to be done in this prosaic field of endeavor. If nations cannot succeed in this phase of coöperation, they will not be able to work together on larger issues. This is a task to which our own Government has turned its attention. Our present commercial-treaty structure is antiquated and ill-adapted to modern economic conditions. By means of bilateral treaties we should be able to

obtain for our nationals guarantees of equality and fair treatment in markets, in the distribution of raw materials, and in the investment of capital in many areas of the earth.

Many matters now ordinarily dealt with in numerous bilateral treaties could be disposed of with less friction under a code of general international commercial law. Several important principles, however, can be made effective through commercial-treaty negotiations even of the bilateral kind.

The first is the most-favored-nation principle, of which there are two important interpretations. The United States, on the one hand, has advocated in the past the conditional interpretation of the most-favored-nation clause. Under American precedents a concession made by one contracting party to a third state was extended immediately to the other contracting party only when that concession was made gratuitously and without compensation. If the concession was made for a consideration, it was not extended to the other contracting state unless an equivalent concession was given in return. The application of this interpretation has led to endless complications and difficulties. On the other hand, the treaty structure of Europe before 1914 rested on the unconditional interpretation of the most-favored-nation clause, which provided that, when a concession was granted to a third power, it was immediately and automatically generalized to all nations entitled to be treated as a "most-favored-nation." Europe's experience with this interpretation was not entirely happy, but the reason for the result must be sought elsewhere. The tariff wars and kindred troubles in Europe grew out of the practice of negotiating short-term treaties on the basis of two-column tariff systems. When the treaties expired, they could be re-established only with

great difficulty and after much ill-will in bargaining.

Indications are not lacking that the United States is about to modify its attitude toward the most-favored-nation clause in commercial treaties. The declaration of policy in Section 317 of the Tariff Act of 1922 indicates that Congress no longer excepts from the definition of "discrimination" concessions granted in return for other concessions; this law provides for penalty duties to be imposed in any case where a foreign nation

discriminates in fact against the commerce of the United States . . . in such manner as to place the commerce of the United States at a disadvantage compared with the commerce of any foreign country.

In the American-Turkish Treaty, moreover, the unconditional most-favored-nation principle is embodied. Our relations with Brazil have recently by an exchange of notes been placed on the basis of the unconditional most-favored-nation principle. In our early history there was, no doubt, some justification for the conditional interpretation of the most-favored-nation clause; but that justification no longer exists. The unconditional interpretation is the natural accompaniment of the open door principle for which the American Government has so consistently stood. Both the unconditional interpretation of the most-favored-nation clause and the open door principle tend to establish commercial equality and on this basis any international understanding must rest.

A second principle not so well known but occurring as frequently in commercial treaties is the principle of national treatment. National treatment is a guarantee that the citizens of each of the contracting states shall enjoy the same treatment with respect to the specified matters as is accorded

to the nationals of the other country. Citizens of Great Britain are guaranteed national treatment under the treaty of 1815 with respect to shipping in the ports of the United States; that is, no discrimination is permitted against goods which are brought into the United States in British ships as compared with like goods imported into the United States in American ships. The national treatment section of the treaty would be violated if the United States were to grant goods imported in American ships a 5 per cent customs rebate over similar goods imported in British ships. Another illustration of national treatment is the treaty between Great Britain and the German *Zollverein*, which terminated in 1898. By this treaty German goods were guaranteed the same treatment in British colonies as that accorded to British goods. It was unfortunate that this treaty was terminated, because it represented a distinct forward step in international commercial relations. Its denunciation was a step backward in the same sense as was the American abandonment of the open door for the Philippines after we had maintained that principle there for ten years.

Most-favored-nation treatment and national treatment do not, however, meet all cases. This is particularly true of distribution of raw materials when the supply is concentrated. If Americans alone owned all the sisal plantations in Yucatan, all the rubber in the Federated Malay States, and all the nitrates in Chile, guarantees of national treatment would not save our manufacturers and consumers from the effects of foreign state policies which force up prices by restricting the quantity to be exported or by levying unduly high export duties. Treaty guarantees should be obtained effective under all circumstances against any

unfair restrictions or unreasonable burdens in the shape of excessive export taxes. It might be possible to obtain guarantees limiting export taxes to some reasonable amount, say, 10 per cent. In other cases a pledge that no undue restrictions would be placed upon the exportation of products of American-owned plantations or mines would be sufficient. In still other cases, it might be desirable to obtain pledges limiting the amount of taxation on foreign-owned properties. The history of the Congo Free State, for instance, shows that guarantees of national treatment, so far as taxation is concerned, may be worthless, when neither foreign nor domestic corporations can control or moderate the taxing power of the local government.

In discussing treaty guarantees affecting the distribution of raw materials and the investment of capital, the fundamental distinction between import and export duties should be recognized. The principle should be accepted that no state should attempt to protect or monopolize manufacturing for markets other than its own national market. Each nation should reserve and safeguard for its manufacturers only its own market. The ordinary import duties on finished articles accomplish this purpose. No amount of protection upon a finished article will enable the manufacturers of a nation to invade and dominate foreign markets. On the other hand, in the present unregulated state of international affairs a national government which controls a national monopoly of a raw material may, by export duties or restrictions on that raw material, levy tribute upon the world in a manner and to a degree which cannot be done in the case of finished products. This may also be accomplished by the concentration of capital in the hands of producers.

Every nation in its treaty negotiations and by legislation should seek to contribute toward the elimination of unfair competition in international relations and toward the establishment of equality of treatment among competing powers. It should not wait until crises arise but should plan a constructive program of treaty negotiations. Grounded on a long line of precedents, this procedure will tend to lay securely the foundations of international understanding. It is also the duty of a nation to organize its economic strength so that it can use it for the purpose of enforcing equality of treatment and the prevention of unfair competition. Penalty measures by a nation for the purpose of exacting special or preferential treatment are never justified, but retaliatory measures are justified for the purpose of exacting equitable and fair conditions.

In addition to regular commercial treaties, there arise between nations many issues which can be disposed of by means of special treaties. The negotiation by the United States Government with Japan concerning the Island of Yap furnishes an excellent example. Outstanding issues of this character between two states, if settled by means of a written document, contribute *pro tanto* to extend the principle of law to the field of international relations.

Extend General Treaties

National safety rests upon something more than action by individual governments, and treaty negotiations between them, bargaining two by two. International coöperation by a series of bilateral treaties, universally accepted, is significant in that it concedes the principle; but all the bilateral treaties will not advance the development of international commercial law as will a few general treaties among all the states concerned. The general

treaties have greater permanence and stability. They bring into line the more nationalistic nations. In their negotiation the principle of mere bargaining between states begins to fade away and the principle of considering issues on their merits appears. They disclose the beginnings of international legislation.

Such genuine coöperation among the nations is necessary to solve some of the most difficult of the world's problems. Beyond a certain point national security depends upon international security. Economic issues, such as the struggle for markets and raw materials, rivalry for the investment of capital in undeveloped areas, disputes respecting unfair methods and practices in international competition and combinations, if not solved by genuine international coöperation, may undermine the national structure on which the modern world rests.

The acceptance of the principle of coöperation among nations to solve essentially international questions is, in no sense, an infringement of national sovereignty. It tends toward the establishment of government and law in a field not adequately regulated by nations today, and which from the nature of things cannot be adequately governed by nations acting alone. Such coöperation supplements national legislation and bilateral-treaty negotiations, since it reaches situations which national action not only does not correct but frequently aggravates.

Make International Coöperation Effective

Nations have begun to make international coöperation effective. They have negotiated various general or multilateral treaties and set up international government in limited fields. Postal communication throughout the world is regulated by the

Universal Postal Union. International treaties afford protection to copyrights (Convention Relating to the Protection of Literary and Artistic Works) and to patents and trademarks (Convention for the Protection of Industrial Property). There are international conventions relating to telegraphic, cable and radio communications. Trade in Central Africa is regulated by the Final Act of the Berlin Conference of 1885 and its amendments. Rules were established to govern commerce and economic penetration in Morocco by the Algeiras Convention of 1906. Naval disarmament, peace in the Pacific basin, and Chinese problems were covered by the multilateral treaties adopted at the Washington Arms Conference. Most elaborate of the attempts at international coöperation are the various parts of the League of Nations' organization at Geneva, including the Labor office. In this type of international coöperation, it may be emphasized, principles other than mere bargaining begin to appear. The tendency is toward considering problems on their merits. The farthest advance in this direction, from which the nations unfortunately have fallen back, was made during the war in the work of the Allied Maritime Transport Council, the Inter-allied Food Council, and the program committees for textiles, hides and leather, paper, timber, petroleum and coal.

Any plan for world peace must provide for all the elements of government. It must provide for the development of substantive international law; for its administration and for its interpretation and construction. An elaborate constitution is not necessary. Indeed, it is not desirable. World government, like any other, must be a slow, gradual growth. International schemes with too much finality and attempted predetermination of issues are

likely to fail. The English common law was the product of centuries of experience. The principles of Anglo-Saxon constitutional government were not born full-fledged. International government must have time through experiment and precedent to weave itself into the fabric of the world's life. The most that any generation can do is to establish tendencies which move towards the goal of a better world order.

WORLD LAW THROUGH CONFERENCES

World law can be formulated most successfully in conferences called to discuss specific problems. Representatives of ability are appointed to attend these conferences with the particular agenda in mind. They are steadied by their sense of responsibility. Their work is performed with respect to public opinion at home and throughout the world. It is only in this way that international law can hope to develop and to be enforced. A few illustrations will suggest the nature of principles which nations might agree to as guides in settling particular disputes.

(1) A definite step in the formulation of world commercial law was taken when the nations represented at the Arms Conference agreed¹⁶⁵ "with a view to applying more effectively the principle of the open door or equality of treatment in China" that they would not seek or support their respective nationals in seeking:

(a) Any arrangement which might purport to establish in favor of their interests any general superiority of rights with respect to commercial or economic development in any designated region of China;

(b) Any such monopoly or preference as would deprive the nationals of any other power of the right of undertaking any

legitimate trade or industry in China, or of participating with the Chinese Government, or with any local authority, in any category of public enterprise, or which by reason of its scope, duration or geographical extent is calculated to frustrate the practical application of the principle of equal opportunity.

But the open door principle is applicable to areas other than China. It requires further amplification and definition. It applies not only to inbound but also to outbound trade. It applies to the investment of capital and to all the facilities of commerce and finance. Its relation must be made clear, first, to monopoly, second, to the conservation of natural resources.

There may be equality of opportunity in bidding for a concession, but if the concession when granted gives a monopoly over the resources of an unreasonably large area, the spirit of equal opportunity is not observed. This situation may arise frequently in the case of minerals and mineral oil. The proposal has been made (and in some areas adopted) to allow exploration rights over large areas in order to encourage capital to engage in prospecting, but to provide that after a limited period a smaller area be selected for exploitation.

The principle of free access to raw materials must not be interpreted to exclude wise measures of conservation. The open door (outward) gives no right to waste the resources on which the world depends. American oil has been exploited for the benefit of the whole world. American companies backed by the American Government now claim equal opportunity in exploiting the oil resources of foreign undeveloped areas. Other large aggregations of wealth are seeking concessions and foreign governments have thrown their influence into the balance because oil has become a vital necessity in peace

¹⁶⁵ Report of the Conference on the Limitation of Armament, Wash., Nov. 12, 1921 to Feb. 6, 1922, p. 1625.

and war. Should this exploitation of exhaustible natural resources go on unrestrained? What interest, if any, should a world conference take in regulating the production and distribution of oil? To what extent is it safe to allow individual countries to impose restrictions with the alleged object of conservation?

Another case which illustrates the problem of conservation is manganese.¹⁸⁸ Manganese is a destructible metal. Once it is used in the process of making high-speed steel it is lost and cannot be recovered as can iron from the scrap. In order to obtain ore of a manganese content demanded by the trade, much of the ore is lost in washing. Is this a world problem? Have we any obligation to conserve the world's limited supply of manganese (and tungsten, too) for future generations?

(2) The aggressive use of government economic measures against other peoples has been a source of ill-will. Under the pleasantly sounding phrase, valorization, governments have assisted in price-fixing schemes for the exploitation of the foreign consumer. Government monopolies, such as the British monopoly of Nauru phosphates, are resented by certain excluded countries. Aggressive export taxes, with or without taxes, with or without preferential features and other restriction, arouse resentment among peoples upon whom these economic burdens fall.

(3) Not the least of the problems requiring consideration by a world conference is the prevention of unfair competition in international trade and the regulation of international combinations. In all advanced industrial countries domestic law protects one competitor from unfair practices by another. In the United States not only does a private remedy exist in

both State and Federal courts, but unfair methods of competition are made an offense against the public. They are prohibited by both the Sherman Anti-Trust Act and the Federal Trade Commission Act. The Tariff Act of 1922 also provides a remedy against "unfair methods of competition and unfair acts in the importation of articles into the United States." Unfair methods of competition are not confined to domestic commerce; they are practised in international trade as well, particularly in countries where the local law provides no adequate remedy. An attempt to correct this evil in a very limited field was made in the Industrial Property Convention under which twenty-nine independent nations and some of their colonies separately agree to assure to the nationals of each other "an effective protection against unfair competition." This and similar provisions, however, have proved in practice to be inadequate. The entire subject of unfair competition should be considered in a world conference and a beginning made toward developing that part of an international commercial code. The subject has been widely considered, especially by business men, and the possibilities of successful international coöperation on this matter are probably greater than on any other.

(4) More difficulties are presented by the subject of the regulation of combinations international in scope. National governments usually instead of restraining encourage their nationals in large-scale production and distribution in the foreign field. Probably little or nothing will be gained by trying to break up combinations in international trade. Under proper regulation they may become efficient, useful agencies for the development of the world's physical resources. Just because they are very powerful they cease to be

¹⁸⁸ See page 189. *The Practical Need for International Conservation of Minerals*, by Mr. C. E. Juhlén, Bureau of Mines.

merely private enterprises. They influence the action of states, and governments even use them to further their political aims. In foreign, even more than in domestic, affairs it is hypocritical to pretend that the vast organizations of our modern economic life are not of primary public concern. This is one of the fields in which national interests clash seriously and in which conflicts may be avoided by conferences on the most advantageous means of employing and regulating great combinations of wealth in furthering the public good and world peace.

Other subjects, such as shipping and electrical communications, might be used to illustrate further the possibilities of coöperation in the development of the substantive law of nations. The cases given, however, will make clear the nature of the problems which, one at a time, might be considered in world conferences inspired by the motive of removing as far as possible the causes of war and extending to international relations the regulating influence of law.

EFFECTIVE ADMINISTRATION OF WORLD LAW

Substantive law, however, is not sufficient. Effective methods of administration in addition must be devised. Even when rules or principles have been agreed upon by nations, extreme views of national sovereignty have usually prevented the setting up of international machinery for their effective administration. This clear necessity should also be faced in future world conferences.

The nature of this particular problem is on the whole obvious to us in America from our experience with the regulation of commerce within the country through Federal agencies. The powers of the Interstate Commerce Commission, for example, grew slowly, but

once developed their exercise has settled disputes between states which, if they had arisen between nations under the present anarchistic conditions of international relations, might have led to war. Federal regulation in the United States furnishes many other suggestive precedents for developing international administration.

An effort to deal internationally with bounties and consequent dumping—an unfair method of foreign trade competition—was made in the Brussels Sugar Convention of 1902 to which the leading European countries were signatories. The treaty prohibited bounties, direct or indirect, on the production or exportation of sugar, and the parties agreed to penalize such bounties, if levied, by the imposition of countervailing duties equal to the bounties. A commission with administrative functions was created to make effective the provisions of the convention.

Effective administrative work is being done by the League of Nations through its various commissions and bureaus. There are, for instance, the purely administrative organizations for the Saar and for Danzig. But perhaps more important in the development of effective international government are such non-political organs, among others, as the Financial and Economic Commission, the Advisory Organization on Transit and Communication, the International Labor Office, and the Mandates Commission. In these sections of the League's organization, international coöperation is taking concrete form.

ADMINISTRATION THROUGH INTERNATIONAL COMMISSIONS

When the Nine Power Treaty was under consideration by the Arms Conference, the necessity for administration was recognized. This Treaty not

only laid down a definite principle concerning the open door, but it provided that China should "not exercise or permit unfair discrimination of any kind" on her railways. The conference then, desiring "to provide a procedure" for dealing with these questions, resolved "to establish in China a Board of Reference to which any questions arising in connection with the execution of the aforesaid Articles may be referred for investigation and report."¹⁶⁷

These precedents suggest lines of further development. The first obviously desirable function of international commissions or bureaus which may be established is investigation. The various subjects of international coöperation considered by conferences will require investigation both before and after conference action. Commissions might be established to furnish information on foreign investments in economically backward countries, on unfair methods of international competition and monopoly, on electrical communication between nations, and on regulating the distribution of certain essential raw materials such as rubber and oil. It will contribute to better understanding among peoples if responsible international commissions with powers of investigation and publicity were permanently established. Secrecy and misinformation have contributed far too extensively and unnecessarily to fear and misunderstanding among peoples. Impartial investigation is absolutely the first step toward further progress in international coöperation.

The development of international regulation must necessarily be gradual. These commissions might in the next place be given semi-judicial or ad-

ministrative powers to deal with subjects with which, as experience has shown, the legal machinery of a court cannot successfully deal. For example, it has been found in the United States that unfair methods of competition as offenses against the public can be more successfully prevented by the Federal Trade Commission than by the Federal courts. Rules once laid down by international conferences could be applied to particular cases by commissions. Decisions should be on the merit of the case between the parties and not a bargain between representatives of two nations. Unhampered by the strict rules of legal procedure these commissions would be able to act more quickly and effectively than a court, and in the majority of cases, as the experience of American Federal commissions has demonstrated, the mere bringing together of contending parties and open consideration of the facts will solve many difficulties without formal litigation. Provision should be made for appeal on matters of law, when desired, to the World Court. The analogy in American practice is the appeal allowed from the decisions of the Federal Trade Commission to the United States Circuit Court of Appeals. Appeals from international commissions to the World Court on matters of law would provide added protection and assure the consecutive development of the precedents under an international legal code.

ENFORCING INTERNATIONAL LAW

But how, it may be asked, will the decisions of these commissions be enforced? The answer is that in almost all cases publicity will be sufficient. The International Chamber of Commerce, for example, relies chiefly on opinion in the business community for the enforcement of its awards under its admirable rules for the arbitration

¹⁶⁷ Report of the Conference on the Limitation of Armaments, Wash., Nov. 12, 1921 to Feb. 6, 1922, p. 284.

of commercial disputes.¹⁶⁸ The Mandates Commission of the League of Nations has found publicity a powerful force in getting its suggestions carried out. If, however, it seems desirable to go further, the commissions, after their rulings in case of an appeal had been passed on by the World Court, might be given power to enforce their decisions against individuals or corporations, or it might be provided that they be enforced through some national body in the country where the offending party is a resident; for example, a decision against an American corporation guilty of unfair competition in international trade might be enforced through the Federal Trade Commission. If the decisions should involve political issues of importance, their enforcement should be suspended and they should be referred for disposition to the next conference of the powers which alone would have power to dispose of international political questions.

A word should be added on the attitude which international commissions should have toward the interest of peoples whose resources are being exploited. The vital interest of China, for example, in her own resources is very often overlooked in discussions and in decisions relating to the economic development of the world. A large percentage of her raw materials must for years be exported. Any international commission considering disputes between the citizens of Western powers over the development of resources in the less economically advanced parts of the world should have in mind the protection of the interest of the peoples in the natural resources found in their territory. These peo-

ples should obtain through royalties and other forms of taxation an adequate proportion of the profit from economic enterprises. The determination of such questions is not easy. Difficult points arise from the issue of what constitutes an adequate profit and of what the relationship should be between the present use of a raw material to the primary advantage of the rest of the world and the future use which might be primarily for the benefit of the locality.

INTERPRETING INTERNATIONAL LAW

Finally, in addition to provisions for the enactment in conferences and the administration through commissions of international law, there should be provisions for the interpretation and construction of the law. In this department of coöperation the precedents are conclusive. From the beginning of American history our Government has advocated and practiced the judicial settlement of disputes. Most of the nations today, except the United States, have adhered to the World Court protocol, and the United States should, in the near future, logically accept this obligation. The cases already decided by the World Court illustrate the nature of subjects on which this branch of international government may pass. The Court has rendered a number of advisory opinions. In one case the question was submitted to the Court as to whether the competence of the International Labor Organization extends to international regulation of the conditions of labor of persons employed in agriculture. The Court answered this question in the affirmative.¹⁶⁹ In another case the Court's advice was asked on whether a dispute between France and Great

¹⁶⁸ International Chamber of Commerce, Brochure No. 21, Rules of Conciliation (Good Offices) and Arbitration, Second Edition, October 21, 1922.

¹⁶⁹ Collection of Advisory Opinions by the Permanent Court of International Justice, Series B, Nos. 2 and 3, p. 9 (August 12, 1922).

Britain over the application of certain decrees issued in Tunis and Morocco to British subjects was or was not by international law solely a matter of domestic jurisdiction. The Court ruled that it was not solely a matter of domestic jurisdiction.¹⁷⁰ The World Court has also rendered one judgment. The *S. S. Wimbledon*, an English ship chartered by a French company, was carrying munitions of war from Salonica to the Polish Naval Base at Danzig. The German authorities refused passage to this vessel through the Kiel Canal, on the ground that such passage was in violation of the neutrality orders issued by Germany at the time of the Russo-Polish War. The question in the case was whether the German authorities acted properly. Basing its decision on Article 380 of the Treaty of Versailles, the Court held that Germany should not have prevented the passage of the *Wimbledon* through the Kiel Canal, and that the German Government was bound to make good any damages suffered by the charterers of the ship as a result of the action taken.¹⁷¹

Given accepted principles of international law a court can apply them to particular sets of facts and by logical interpretation build up a consistent body of precedents. Mention has been made of the most-favored-nation principle in commercial treaties. If all treaties containing this provision provided for an appeal to the World Court in cases of disputes over meaning or application, there would gradually develop a consistent, useful body of precedent which would guide the nations in their commercial relations. A court it must always be remembered has limitations. Its effectiveness de-

pends on recognizing this fact. The World Court when asked to give advice in a dispute between Russia and Finland replied that the question was not one of

abstract law but concerns directly the main point of the controversy between Finland and Russia, and can only be decided by an investigation into the facts underlying the case. Answering the question would be substantially equivalent to deciding the dispute between the parties. The Court, being a Court of Justice, cannot, even in giving advisory opinions, depart from the essential rules guiding their activity as a Court.¹⁷²

But within well-defined limits a court can take recognized principles of international law and treaty provisions and upon them extend the jurisdiction of law to many fields in which today it reigns, if at all, only imperfectly.

RELIEVING ECONOMIC PRESSURE IN CHINA

Before concluding, it may be proper to refer in passing to another problem of international affairs, which falls outside the settlement of disputes between Western states but which none the less must be squarely faced if the world is to enjoy lasting peace. It is a product of the economic pressure of population on the resources of Asia. The problem for the East and the West jointly to solve is how to give to the East some of the material advantages of Western progress and of scientific methods and at the same time to preserve the fundamental spiritual values of Eastern civilization. Different methods to accomplish this result will have to be pursued in different countries of the East. Great Britain is able to take

¹⁷⁰ *Ibid.*, No. 4, p. 21 (February 7, 1923).

¹⁷¹ Collection of Judgments of the Permanent Court of International Justice, Series A, No. 1, p. 21 (August 17, 1923).

¹⁷² Collection of Advisory Opinions of the Permanent Court of International Justice, Series B, No. 5, p. 6 (July 23, 1923).

care of the problem for India. Persia is again mistress in her own house and may be expected to solve her own problems. In China indications are that some disinterested assistance from the outside is necessary. The development of the food supply and of the better organization of China's economic life is the concern of the whole world. No large area of the earth can be allowed to remain unproductive, or to underproduce, without the rest of the world suffering seriously in consequence. A commission of experts and impartial representatives drawn from both China and the Western powers might be appointed to supervise, with the full coöperation of China, the economic development of that country in the critical transition stage which is just before her. This proposal is not merely another form of the consortium idea. The members of the commission should be disinterested men of high standing both in the Western and in the Eastern world, who would aim to develop China for the Chinese people. They should be backed by governments in order to give to their efforts stability and purpose. It would be necessary at the outset to determine clearly the body of principles upon which these men were to act. Their first object should be to improve the food supply. The primitive methods pursued in the production of food, the lack of irrigation, floods and other serious obstacles, can be overcome only by effective coöperation. The problem of migration should be studied and people should be encouraged to move to areas still open to Asiatic settlement. A national system of transportation should be devised and developed in the national interest. This and similar problems could be carried out if sufficient will to do it were present among the peoples concerned.

GOVERNMENT IN INTERNATIONAL RELATIONS

Just a word in conclusion. The suggestions which have been made concerning international coöperation are in line with the best American tradition. If carried out, they will tend to remove the causes of war. Until these or similar steps are taken toward effective international coöperation, it will be necessary for nations to maintain their military organizations. Armaments are bases of security until something more effective is established. The choice before the world is between force and coöperation. The more coöperation is practiced, the less will force be resorted to. The more effective international machinery becomes, the less belief will there be in dependence upon force. But until the machinery is built up and perfected, nations will seek their security through armies and navies. No plan for world peace is worth very much which waits until a crisis is on before acting. Incidents such as the Dogger Bank affair in 1904 cannot be foreseen and must be dealt with after the crisis has arisen, but they in themselves do not ordinarily involve fundamental conflicts of interest. Sometimes they are made the occasion for forcing the settlement of other issues which should have been disposed of before they had reached a dangerous stage.

Armies, navies, and aeroplanes are the expensive concessions which we make to our lack of vision. They seem to give us national safety and when we see no other alternative we cling to them as our only hope. But the oncoming generation is disillusioned. It sees the tragedy of the last ten years of world history. It realizes that unless we organize and control the great material forces of our civilization they will destroy it and us. It is not seek-

ing a false safety in armaments but a real safety in the development of government in international relations. This goal is becoming more clearly defined each year and the determina-

tion to attain it gathers strength. It will not be gained in a day, but with the tendencies established those who are working a better world order can wait and be confident.



SUPPLEMENT

**The Papers Presented at the Round Table Conference
on Raw Materials and Foodstuffs in the
Commercial Policies of Nations**

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The Crude Rubber Situation

By H. N. WHITFORD
U. S. Department of Commerce

A BRIEF history of the development of the rubber plantation industry is necessary for a clear understanding of the present crude rubber situation. The crude rubber production of the world falls into two distinct classes—(1) wild rubber, which is procured haphazard from areas where rubber-bearing trees and vines grow in the wild state, and (2) plantation rubber grown in specially cultivated properties. Up to 1905, when the world's production of rubber was 62,000 tons, the principal source of the crude product was the Amazon region, the plantation rubbers furnishing in that year a bare 145 tons. In 1913 the total world's production reached 108,440 tons, but the plantation product was increasing by leaps and bounds, and in the next year, 1914, the production from the plantations reached 71,380 tons out of a total world production of 120,380. In 1922 the world's production was 380,280 tons, of which the enormous figure of 355,340 tons was plantation rubber, the wild production, chiefly from the Amazon, having declined to 25,000 tons.

THE GROWTH IN RUBBER PLANTATIONS

The transition of this important product from a state of wild production to a cultivated one in so short a time has not been surpassed in the history of agricultural development. It stands out as a stupendous example of man's control over nature. While all our important agricultural and horticultural products were originally developed from a wild state, no cultivated product has been so completely removed from its original habitat and

transplanted with so astounding success within the period of the present generation.

In 1876 Wickham smuggled seeds of Para rubber out of the Amazon to England. These were germinated in the Kew Gardens, London, and young plants shipped in Wardian cases to Ceylon and there planted. From this experimental plantation and from the progeny of these few trees, all the seeds that have resulted in the plantations of the Middle East have come.

Before the era of plantation rubber, most of the world's product came from scattered trees covering an area about two-thirds the size of the United States. Today it comes mostly from British Malaya, Ceylon, Sumatra and Java, comprising a total area of 290,000 square miles, or an area only about 15,000 square miles larger than the one state of Texas. The total acreage of the area which is devoted to rubber plantations is estimated at over 3,000,000 acres, or about 5,000 square miles, or, in point of comparison, they would just about cover a state the size of Connecticut if planted in one block.

The annual employment of upwards of 1,000,000 laborers has been necessary to lay out and maintain these plantations. With a population of 50,000,000 within the plantation rubber-producing regions, 35,000,000 of which is in Java, combined with the Tamil labor of southern India, and the heavily populated regions of southern China to draw upon, abundant and cheap labor has been available up to the present time, and this in spite of the fact that other agricultural and commercial in-

dustries in the same regions require heavy labor supplies.

In the Amazon and other regions in the tropics where the climatic conditions seem favorable for the growth of rubber, the population is not dense. The higher price of labor is consequently an unfavorable factor, but other compensating factors may be found that will overcome this handicap. This is particularly true of the Amazon valley region, where the decline of the rubber-gathering industry has caused widespread unemployment. The present population numbers nearly 2,000,000 people, and this, together with the chance of recruiting additional labor from the more heavily populated states of the drier regions of northern Brazil, and perhaps from other countries, would give sufficient labor for the beginnings of a fair-sized plantation industry, especially as the governments concerned have expressed themselves as willing to offer more favorable concessions than they have in the past.

It is hoped that a way may be found, in some of these countries, to start a rubber plantation industry, either by the investment of American capital or by way of inducing the local governments to encourage their own people to engage in rubber planting. These latter possibilities should not be overlooked, for 28 per cent of the rubber that now comes from British Malaya is raised on small holdings of 25 acres and under.

AMERICA'S DEPENDENCE

But with the decline in production in wild rubbers and the development of plantations far removed from the consuming markets of the United States, a new economic problem has arisen which has led to considerable controversy and apprehension on the part of the American manufacturing industry. Fully 72 per cent of the plantation acreage of the

world is now in British territory and an additional 10 per cent is controlled by British capital. The remainder is mostly controlled by the Dutch. All told, American companies hold in the neighborhood of 100,000 acres, or about 3 per cent of the total. On the other hand, the United States consumes upwards of 75 per cent of the world's production. The dependence of the American rubber manufacturing industry upon foreign-controlled rubber supplies thus becomes a subject for concern. The fear has been expressed that such producing countries have it in their power to raise prices to unreasonable figures by control of the output or by increased export duties. Also the restriction of the supply of so essential a commodity to one particular geographic region is a great hazard to the consumers of the world over. In war times the condition might be such that the United States would be cut off entirely from its supplies. Also an uncontrollable disease might wipe out in a short time all the existing plantations, as was the case with coffee of the same region at one time.

POLICIES OF PRICE CONTROL

The domination of foreign control was first felt upon the American rubber manufacturing industry during the early months of the World War and before our entrance into the struggle, when England, in order to hamper the enemy, placed restrictions on export shipments of rubber. The United States industry was using at that time 80 per cent of the world's annual production and would have felt a severe pinch had it not been for the fact that the industry appreciated England's position and gladly met the requirements of the British regulations. However, the many articles of rubber manufactured by the industry were of great demand for war use by the allied gov-

ernments and consequently no great difficulty was experienced, under the circumstances, by the American industry in securing the raw material. It was not until 1920 when production began to exceed consumption that prices reached a new low level. The situation in the Middle East became so alarming to the plantation owners that the Board of Directors of the Rubber Growers' Association met to consider possible remedies for the situation. Of the British holdings approximately one third was owned by members of this Association and, therefore, subject to moral control by it.

The result of the deliberations of the Directors of the Association was a plan calling for restriction of output. This policy was recommended to their members and called for a voluntary reduction by 25 per cent in production for a period of one year, beginning November 1, 1920. The Association also invited non-members to adopt the same restriction plan. About 90 per cent of the members agreed to the proposal, but amongst the non-member growers the policy was not welcome. This was true of the European plantation owners who had been able to reduce their costs to a minimum, and especially of the Chinese and native owners who had a very low production cost. Since the Association only controlled one third of the total British-owned plantation area, it was evident that a policy of non-coöperation on the part of non-members would destroy any restrictive plan. And although an effort was made to continue the operation of the plan, the idea in general soon proved a failure.

The situation in the industry, however, was critical, and in 1921 grew steadily worse. Prices still continued to decline to a low level, while the London stocks of surplus raw rubber increased. Voluntary restriction under

the Association's plan had not had any good effect, and it was urged that a new and even higher percentage of restriction of production be made and that additional effort be urged in making the restrictive scheme operative on all growers. It was proposed that a controlling company to be known as the Rubber Growers' Corporation be organized for this purpose. In October, 1921, after an unsuccessful year of voluntary restriction, the plan was again energetically urged by the Association and the time of its operation extended. In the same month, the British Colonial Office, which had heretofore maintained a policy of "hands off" in the situation, became interested to the extent of appointing a committee to study the question and suggest necessary remedies.

In the meantime, due to the material increase in industrial activities and the general confidence in the eventual outcome of the raw rubber situation, the market began to respond favorably, more takings were in evidence and were reflected in slight price increases. But the Committee of the British Government was ready to make its report and, while duly impressed with the gravity of the situation, firmly refused to favor the adoption by government action of any restriction plan unless it was with the support and coöperation of the Dutch Government. The report was issued early in 1922 and coupled with the knowledge of the failure of the voluntary restrictive plan of the Growers' Association, let the bottom out of the rubber situation again, with the result that a new decline started, and in August when the Dutch Government officially stated its unfavorable attitude to a restriction plan, the price of rubber reached its lowest figure.

But the worst of the crisis was over; the activity in the American industry was increasing. In fact, with the in-

creased development of the manufacturing industry, the consumption requirements under full working conditions were in fair comparison to the increased production from the plantations, notwithstanding the surplus stocks on hand. These stocks had been gradually decreasing during 1922. The lowest price maintained held only a short time, and by early December the price level had risen very favorably.

In the face of these encouraging signs, a special rubber committee of the British Colonial Office presented a supplementary report on October 2, in which they reversed their previous judgment and strongly urged an immediate scheme of government intervention and control to be put into effect in Ceylon, the Malay States and the Straits Settlements.

The scheme as outlined had for its basis a sliding scale of export taxes graduated according to the percentage of rubber exported in stated quarterly periods as compared with the amounts exported in the year ended October 31, 1920, the period before voluntary restriction was attempted. Exportation during the first quarter to be restricted to 60 per cent of the production during one fourth of the standard basic year; a minimum export duty to be levied on that percentage of standard production allowed to be exported at the minimum rate; the exports in excess of allowance to be subject to heavier taxes proportionate to the percentage exported and applicable to the entire exports of the company. These were the chief features of the scheme.¹ The scheme was

¹ Alterations in the percentage of standard production were provided for on the basis of the price of standard quality smoked sheet in the London market. An average price of 1s. 3d. per pound during a stated quarter would bring an additional release of 5 per cent for the following quarter; an average price of 1s. 6d. would result in a 10 per cent release. Inversely, if the price should average less than 1s. per pound during a

adopted in all essentials by the colonial legislatures and became effective November 1, 1922, in British Malaya and Ceylon.

This restriction policy has now become famous under the name of the chairman of the committee, as the Stevenson plan. In general the advocates of restriction, while deprecating the interference with the law of supply and demand, claim that it was necessary to save the industry; that many of the plantations would have been put out of business because the price of rubber was below the cost of production, resulting in a shortage of rubber. It should be stated, however, that practically all the plantations were started in time of high-priced rubber when no one expected rubber to fall below 40 or 50 cents per pound. Even at the lower prices good profits were assured. The result was that the necessity for closer attention to the production costs and those of bringing plantations into bearing was not generally felt. Low prices have now had the beneficial effect of more businesslike methods resulting in many instances in lower costs of production.

It should be pointed out in this connection that, while improvements have been made in plantation practices, the industry is young and empirical methods have governed the planters. It is only comparatively recently that attention has been given to improvement in the plant stock by selection and by budding. Some methods promise to double the present yield per acre, with little increase in operating costs. Scientific methods were brought about by the discovery that say 30 per cent of the trees produced 70 per cent of the latex. The effort is being made to obtain like

three months' period, a reduction of the percentage by 5 per cent was provided for the following quarter.

yields from 100 per cent of the trees. The average yield per tree is 3 or 4 pounds per year, while some trees are known to yield upwards of 30 pounds.

RESULTS OF RESTRICTION

Some advocates of the restrictive scheme maintain that it will stabilize prices. They call it a "regulatory" rather than a restrictive measure. There is no doubt that speculators took advantage of the announcement of the measure and forced the price of rubber up from 17 cents a pound the day before the scheme was announced in late October to near 37 cents in January, and again early in March. From that time the price has dropped to below 30 cents and for some time has been maintained between 25 to 30 cents. Many supporters admit that the price of rubber was on the upgrade and would be selling today at about 25 cents more or less without restriction. There is a belief by some that restriction enables the speculator within and without the ranks of those who have the control of the scheme to manipulate prices better than if the laws of supply and demand were working normally. It is within the power of those who have charge of the scheme to control releases by modifications of the regulations and keep a fairly stable price for rubber, but it is feared by many that they will not use this power wisely and therein lies the great danger of the Stevenson Act. Some maintain that if releases are

regulated to allow an eight months' supply of rubber ahead, the market will not be one that can be manipulated by speculation. It is argued that if this supply is reduced to six months, or below, it will increase speculation proportionately.

The fear of low prices of rubber is the main factor that prevents capital from making investments in new plantations at the present time. It is estimated that the present plantation area is sufficient in size to supply the needs of the market for four or five years to come. It should be noted, however, that it takes five or six years to bring rubber into bearing and eight to ten or more years to bring it into full bearing. At the present rate of increase in consumption, unless additional plantations are started soon, the United States will be facing a possible shortage of rubber within five or six years.

It is this economic question of the probabilities of a shortage in the crude rubber supply, in addition to the important fact of the dependence of the American rubber manufacturing industry on foreign-controlled supplies, that prompts the present investigation which is now under way by the Department of Commerce, and which has for its object the hope of developing information on potential rubber-growing areas which may be advantageous for possible cultivation on the plantation principle, and which would insure to the American industry a rubber supply commensurate with its great needs.

Operations of an American Rubber Company in Sumatra and the Malay Peninsula

By H. STUART HOTCHKISS
United States Rubber Company

THE area, about which I am going to speak and from which our experience has been gleaned, comprises 110,000 acres. Of this area 88,000 acres are in Sumatra and 22,000 acres in the Federated Malay States. There are planted about 50,000 acres in Sumatra and 10,000 acres in the Malay States.

METHOD OF OPERATION (DUTCH AND BRITISH)

Preparatory to establishing a rubber plantation, it is of course necessary to make an exhaustive study of the country from the technical standpoint of soil conditions, rainfall, freedom from wind, transportation and labor supply. Success depends almost equally, however, upon favorable governmental conditions, such as stability and the equity of the laws under which the company must operate. In the case of the United States Rubber Company, the countries eventually selected in which to operate were British Malaya and the Dutch East Indies.

THE ADVANTAGES OF PRICE CONTROL

The British laws are the fairest and most equitable with which we have come in contact throughout our world operations. There has been a great deal of misunderstanding with reference to the Stevenson plan. It is an act to regulate rather than to restrict. An act to regulate is, in my opinion, as much in the interest of the manufacturer as of the planter. The reason for this is that to provide for the future we must have more trees in the ground. As pointed out, it takes six or seven

years for these trees to mature, and the low prices that rubber has commanded for the past two years have resulted in little or no new planting during that period. If consumption increases, as it probably will, the manufacturing industry is apt to face a real shortage of supplies a little later on. Consequently, while the Stevenson plan may be criticized, and all of us have criticized it very freely in the past, on the ground that it is unsound academically to interfere with the natural laws of supply and demand, if it succeeds in bringing rubber, as it has, to a price level high enough so that capital is again attracted to new planting, it is practically advantageous. The question is whether serious damage has not already been done by the fact that restriction was delayed as long as it was and whether by the time the necessary legislation was enacted, the crisis in the planting industry was not on the verge of natural solution. Some American manufacturers held the belief that restriction was no longer necessary and that it established a bad and serious precedent. The British Government, however, took the opposite view and proceeded on that basis.

TAXES

In British Malaya there is only one tax and this is a very moderate export tax. This has always been based on a sliding scale of rubber values and even under the Stevenson Act, it amounts to a little less than a British penny per pound on the normal amount of rubber permitted to be exported. In the

Dutch territories there is an export tax, too, although little has been said about that. Brazil imposes an export tax running in some cases as high as 23 per cent *ad valorem*. The Dutch, aside from their export tax, have excess profits taxes, income taxes and, in one instance in our experience, we have known them to resort to retroactive taxation, which is as unmoral as it is unsound. No one hears about Dutch or Brazilian methods because, unfortunately, there is a substantial element in our press and public with whom it is popular to criticize Great Britain whether right or wrong.

Brazil, which was the natural habitat of the *Hevea Braziliensis*, the tree now universally cultivated in the East, has in the past notoriously mishandled her opportunities. Her taxes have been excessive and her governmental promises unreliable. Besides this, Brazil is handicapped by a scarcity of labor, a plentiful supply of which is absolutely essential.

Areas in the southern Philippines, below the typhoon belt, will undoubtedly prove geographically and meteorologically suitable for the growing of rubber, but radical changes must be made in the laws limiting land tenure and immigration and positive assurance must be given of permanent control of the Islands' affairs by Americans. Otherwise capital cannot be attracted.

METHOD OF ACQUIRING LAND

In the Dutch East Indies no titles to land are given in fee simple, but concessions for specified areas and fixed periods, of say 75 years, are granted, either by the Dutch Government direct or by the native Sultan, with the approval of the Government. Rentals are fixed from time to time in different localities, ranging anywhere from 16 cents gold to 50 cents gold per acre per year.

In Malaya conditions vary in the

different federated and non-federated states, but in the case of concessions, the grant is usually for longer periods, and in some cases actual ownership is possible. Here, as in Sumatra, the State Government receives a specified price per acre, which is continually being increased as available lands become scarcer. The present price of land in the state of Kedah, in which we are now operating, is close to \$20 gold per acre. You will see by that that rubber lands, even in the jungle, have a very decided value.

In all, there are about 3,500,000 acres of rubber planted in the East, of which about 2,500,000 acres are in British territory, 900,000 acres in the Dutch East Indies and the balance principally in Indo-China.

ORGANIZATION

In creating a vast enterprise in a tropical country 12,000 miles from home, success or failure hinges largely upon the organization that it is possible to build up. It requires a most careful selection in choosing the staff, because mistakes cannot be as quickly rectified as is possible at home and intimate control is far more difficult. Generally speaking, pioneer work attracts men of unusual individuality, and this type is apt to be difficult to hold together in a homogeneous machine. There must be scientists, engineers, practical planters and, last but not least, accountants, for vast sums of money can easily be lost through laxity of method as well as through errors in technical judgment. The industry is still young, but already much has been learned so that it is now possible to avoid many of the mistakes made in earlier days. This applies not only to the personal equation but to the selection of suitable areas, to the stock to be used in planting and also to the technique of tapping.

The technical men may be engaged in the United States or Europe, but the responsibility of recruiting the labor force rests with the managers in the East. In Sumatra, where we have planted roughly 70 square miles in one block, or very nearly the equivalent of a strip of land a mile wide extending from New York to New Haven, we are dependent primarily upon contract Javanese coolies. These are recruited in and transported from Java, which in point of time is almost equivalent to importing labor from Ireland to Massachusetts. Malaya and Java estates are operated with free labor. I shall have more to say regarding the relative merits of the two labor systems a little later on.

SCIENTIFIC DEPARTMENT

It is necessary to have engineers to build roads, railroads, drains, bunds for soil conservation, houses and factories; micrologists to study and control tree diseases; soil analysts to determine suitable areas for planting and the character of manures to be applied where necessary; foresters to supervise the planted area and to study thinning and tapping, with reference to yield and bark renewal (for bark surface is a plantation's capital, the bark must be conserved and at the same time you must get the maximum amount of latex from it); and genetic botanists to assure the proper selection of seeds and the propagation of high yielders through bud grafting and marcotting.

The total planted area, which is cleared of all stumps and fallen timber and clean weeded, requires constant upkeep, and some idea of the magnitude of detailed supervision necessary can be appreciated if it is realized that the life history of upwards of 5,000,000 individual trees is accurately kept. We have to keep the life history of

those trees and we keep it monthly, so that we can determine the stock from which to bud and from which to breed better strains.

Today the average yield per acre throughout the East is probably less than 350 pounds. With the development of budding it is theoretically possible to bring this up to over one thousand pounds an acre. If we should be able to do this, the cost of production would automatically be cut to what at present would be considered a ridiculously low figure. It is quite possible that at some time in the future we may see plantation owners and manufacturers both happy with rubber selling at around 15 cents a pound. This, however, is some years off, as there is a great deal still to be learned in regard to the technique of budding.

LABOR

Reverting again to the question of labor, I have already mentioned that the indentured system is still in vogue in Sumatra and it is to be hoped, in the interest of both laborer and planter, that the present system will not be interfered with by legislation. This does not mean that there is no free labor in Sumatra, for there is always a substantial number of Chinese, principally engaged on tobacco estates, and Javanese, who settle in the country after their terms of contract have expired.

The agitation against the Penal Sanction, as contract labor is called, is due in the main to a lack of understanding as to what it really means. For this reason a brief description of conditions as they exist may be of interest. The coolies agree to enter the service of a certain employer for a period of three years at a fixed wage. If they break their contract and abscond, their employer is protected in his agreement by their arrest and return to the estate,

but there are comparatively very few cases where the law has to be invoked. It is sometimes contended that coolies are bribed to sign contracts which they do not understand and thus become virtual slaves. This condition may have existed years ago, but it is absolutely impossible today; in fact, Government labor laws and regulations are so stringent that it is sometimes very difficult for planters to maintain proper discipline. We had a case a year or two ago where a coolie attempted to wreck one of our trains. He was caught after several unsuccessful attempts. Upon being brought before the Dutch magistrate, he was discharged with a fine of 40 cents gold on the ground that he was a poor ignorant coolie and did not know any better. The difficulty of maintaining discipline is really one of the great problems that confronts the management at the present time, due to the rigidity of Government control which is all in favor of the coolie. We are not disposed to quarrel with this rigidity because, after all, while we may regard it as now unnecessary, it undoubtedly has a good effect in preventing a reversion to some of the old abuses that existed on plantations in the past.

The labor agreement is signed in the presence of the governmental controller of the district in which the coolie lives and he sees to it that there is no misunderstanding. Moreover, news spreads with almost telegraphic rapidity among the Javanese, as with many other primitive peoples. The coolies returning to Java at the expiration of their contracts would very quickly disseminate and exaggerate any stories of bad treatment or misrepresentation, and recruiting would stop automatically.

As a matter of fact, the indentured labor is much better off on an estate than in their own unsanitary kampongs.

The dwellings provided for them are well arranged and clean; they have the best of medical attendance and are assured of an ample supply of good and nourishing food. In the case of the Holland American Plantations Company, the largest of our operating subsidiaries, food is not only supplied at a figure averaging below cost but the variety is regulated and the meal is prepared by company cooks. This method has been found desirable as assuring a proper diversity of diet, thus preventing beri-beri and eliminating other evils that sometimes occurred through coolies gambling away their ration, and consequently becoming undernourished, thereby being rendered more susceptible to disease.

When coolies arrive on our Sumatra estates, they are usually emaciated and, in 90 per cent of the cases, weakened by the ravages of hookworm. The first step, therefore, is to put them in a rest camp for approximately a month and treat them for hookworm and any other diseases that a careful medical examination may disclose. Then, at the end of the prescribed period, they are allotted to their permanent quarters in the field. Hours of labor never exceed ten, from which the lunch period is taken, and are so regulated that the coolie has time for rest and recreation during the daylight hours; he starts the day at sunrise. The quarters are inspected daily by the assistant in charge of the division and periodically a careful medical inspection is made of each individual. In the case of any serious illness, the coolie is immediately sent to the hospital, either at his own request or by the assistant in charge.

Java has a population of more than 35,000,000 on an area about equal to the state of New York. Recruiting labor there is handled through agencies established in that country by the

Avros or Planters' Association of the East Coast of Sumatra, and these agencies are under the strict control of the Dutch Government. The cost of recruiting plus transportation must, of course, be amortized over the life of the contract. This, at the present time, amounts to approximately \$60 gold per capita. That is the investment we have in each one of our indentured laborers when we start. Men and women, both, are recruited, an effort being made to maintain the proportion of about two thirds male to one third female labor on the estate. The rate of wages on original employment is approximately 19 cents gold for the men and 17 cents gold for the women, and is almost entirely dependent upon the price of rice. Companies in Sumatra sell rice to the coolies at a fixed price of 12 guilders per bag of 200 pounds. During the war and immediately subsequently, the cost of rice to the companies was five or six times that. Money wages, however, remained comparatively stationary, as companies granted a virtual increase through absorbing the loss incurred by selling rice at pre-war levels.

At the end of the contract the coolies have the option either of re-engaging for a period of two years at increased wages, of remaining on the estate as free labor and continuing at their pleasure to occupy company quarters, or of being returned to their native homes in Java at company expense. About 85 per cent of the men and 60 per cent of the women exercise the privilege of re-engaging. The women who do not re-engage usually remain on the estate and raise their families.

The coolie is always better off physically at the end of his contract, because of the personal care that he receives from both employer and Government.

It will readily be appreciated that,

having invested so much in labor force, the employer necessarily is induced to spend large sums to keep its unit of efficiency at the maximum. This can only be accomplished by keeping the sick and death rates at a minimum. As an estate grows older, it tends to become more healthy, for jungle clearing and malaria go hand in hand. We have gradually watched our sick rate drop from over 4 per cent, which in the old days was considered excellent, down to less than one per cent today, while the death rate is now running about 1.2 per cent per thousand.

On the Malayan Peninsula, as I have said before, we, in common with other estates, are dependent entirely upon free labor, working preferably with Tamils and Telegus from southern India, although many Chinese are used for the heavier work of felling jungle. In Malaya, competition for labor is very keen in normal times, but the Indian is very prone to follow individual Europeans who acquire a reputation for fair and liberal treatment. For this reason, personality is an even greater asset in a manager or assistant there than in Sumatra. A free labor force is less permanent than an indentured force, so there is a gentlemen's agreement among planters in Malaya not to deliberately crimp each other's employes. A company is supposed to recruit in India and transport to Malaya a number of coolies approximately equivalent to those employed in its own operations, so that the total population of the Peninsula is increased with expanding operations. Indian labor is recruited by sending native Kanganis or local foremen to the different Indian villages where the Malay district, if not the individual estate, is well known by the usual native means of wireless communication.

In opening up in Malaya, it is of the greatest importance to establish a good

reputation for health and congenial conditions of employment from the very first; otherwise, labor will refuse to come or, once arriving, will rapidly disperse to other more popular localities, leaving the unfortunate manager nothing to show for the expense incurred.

Conditions in Sumatra under the contract system have been generally better than in Malaya, because Malayan planters, regarding their labor force as transitory, have been unwilling to invest as heavily in permanent projects for sanitation. This condition, however, is rapidly changing for the better, and today the movement is general to regard a force as permanent in total, even if there are individual exchanges in the personnel with other estates.

Under the contract system in Sumatra, rice, the principal article of diet, is sold to the coolie at a fixed minimum price, the company absorbing any excess that it is necessary to pay on the market to secure the supply. In Malaya, rice, dried fish and vegetables are sold at cost. In both places, an effort is made to give the laborers facilities for keeping their own chickens and growing vegetables.

AMUSEMENTS

Throughout the planting countries in the East, generally, encouragement is being given to the development of athletics and, at stated periods during the year, field days are held. Besides this, moving pictures are being introduced as an added entertainment. The films, however, are very carefully censored and an effort is made to show nothing that will decrease the respect of the native, particularly for white women. It is curious to study the mentality of the native. One would think that seeing moving pictures of the wonders of the world would inter-

est him, but this is not the case. All that he seems to care for is horse play of the Charlie Chaplin variety. Despite our efforts at censorship, I think that the coolie I told you about who tried to wreck the train may have gotten his idea from the movies after all, as the explanation that he gave of his motive was that he wanted to see the smash.

HOSPITAL ORGANIZATION

Both Dutch and British laws require ample hospital facilities and these are closely supervised. A few of the larger properties, such as our big Sumatra group, maintain their own; in other cases, there are centrally located hospitals supported jointly by a number of neighboring estates.

We have a hospital for Europeans with European nurses and the big central hospital for Asiatics, with nearly a thousand beds, including a maternity ward. The chief medical officers are European, supported by a staff of native assistants and dressers trained in the Dutch East Indian medical school at Batavia. The building itself is brick with tiled roofs and the operating and dressing rooms are supplied with the most modern equipment, permitting of thoroughly up-to-date treatment of any cases that may occur.

The labor force of the Holland American Plantation Company numbers from 14,000, to 20,000, scattered over the seventy square miles of cultivated area, each division being connected with the central administration, both by motor roads and by narrow-gauge steamrailway. Foodstuffs and supplies are distributed by these systems of communication and sick coolies are brought in by ambulances.

As previously mentioned, it is of primary importance to eliminate hookworm, as the resulting enervation ren-

ders the coolie susceptible to every other sort of more serious disease. In the old days, cholera epidemics took heavy toll, but medical science has now provided a vaccine so that this is no longer feared. Beri-beri, which comes from eating polished rice, has also disappeared as a result of regulating diet. An epidemic of influenza proved disastrous on one occasion, and there are occasional epidemics of other diseases. Malaria is perhaps man's worst enemy in the East, and while great progress has been made in the extermination of the mosquito, the obvious difficulties of eliminating him entirely are very great. In this work, as well as in all other matters of sanitation and preventive medicine, it would be difficult to say too much in praise of the work of the Rockefeller Foundation and the assistance that it has rendered us in an advisory way.

The laws of many of the states in Malaya prohibit the maintenance of private hospitals, requiring all very sick coolies to be transferred to nearby Government institutions. This being the case, it is only possible to maintain temporary hospitals on the estate. These Government hospitals do not compare favorably with the hospitals of Sumatra and, generally speaking, here again, the free labor in Malaya is at a disadvantage as compared with the labor across the Straits of Malacca.

We are, at the present time, opening approximately 10,000 acres of jungle in Kedah which, when completed, will be perhaps the largest single unit in Malaya. As this work progresses, an effort will be made to obtain permission to erect and maintain our own hospital, designed on most modern lines, because, here, as in Sumatra, it is to the financial interest of the company to maintain the highest degree of efficiency in its labor force.

LIFE OF THE EUROPEAN ON THE ESTATE

The average plantation manager is beginning to get old at from 40 to 45 and ready to be replaced by a younger man. He has probably come out to the East at the age of 22 or 23, served his apprenticeship of six or seven years as an assistant, learned the business and then been assigned as manager to some small estate to begin with. Both managers and assistants are provided with free housing, medical attention and, in the case of managers, usually an automobile for transportation. The houses vary greatly on individual estates, but for the most part they are designed for the tropics and if of good construction are exceedingly comfortable. Life is not nearly as primitive as one is apt to imagine, except in very remote and undeveloped districts, for there are many home comforts including excellent telephone systems. There are usually good clubs within easy distance, with billiard tables, tennis courts and often golf courses, football and cricket fields.

In Sumatra we are blessed with a beautiful hill station, Brastagi, which is easily reached. There is a hotel there and many of the companies such as ours maintain private bungalows for the use of their staffs. Five thousand feet makes a tremendous difference in temperature, and a few weeks of outdoor life in a temperate zone works marvels in resuscitating vigor and interest in life after a period of perhaps monotonous work in the lowlands.

In the old days, young men going out expected to stay six or eight years before returning to their homes on leave, but now the period has been cut to three years (except in the case of the Dutch who usually remain about five years) and the agreements usually pro-

vide for six months' leave on full pay at the expiration.

Throughout the East generally, it is customary to pay bonuses to the staff or to allow them a percentage of the profits of the undertaking. In Sumatra we distribute, under this latter plan, 12½ per cent of our earnings to those engaged directly in production and bonuses up to 25 per cent of their salaries to others. Life in the East, generally speaking, unfits the average man for work at home later in life; consequently, the theory is that men should leave the East with at least a modest competency, and profit sharing and bonuses are intended to make this possible. In addition, we have in force pension plans which not only benefit Europeans but also the coolies themselves, after service of 25 years. I think that is becoming more and more general in the East, and the coolie labor which used to be so very transitory is now becoming much more permanent.

In brief, the whole managerial problem is almost analogous to handling an army; the general staff is in New York, with liaison officers in London and Amsterdam; a major general or managing director is in the East; the brigadier general is the head manager; the colonels, the managers of estates; and the captains, the assistants, who come in direct contact with their companies of laborers.

THE PROBLEM OF THE UNITED STATES

The areas suitable for growing rubber, particularly Hevea or Fine Para on which the industry depends, are limited geographically, so that it is unlikely that appreciable quantities can ever be grown within the confines of the United States. This being the case, the American industry must depend either upon our own tropical possessions or upon foreign countries. Of course

we always will get a certain amount of rubber from guayule, which can be grown in northern Mexico and Texas, but the amount will probably not be very appreciable as compared with the total.

Up to the present time, labor and land laws, together with the indefinite political future, have prevented capital from flowing to the Philippines. Shortage of low-priced labor and Government insecurity have likewise discouraged investment in Latin-America. Twenty years ago virtually 100 per cent of the rubber consumed in the world was from wild sources; today approximately 93 per cent comes from plantations established principally under the British and Dutch flags in the Middle East.

Based upon the experience of the United States Rubber Company as the owner of extensive plantations, both in Malaya and Sumatra, we can see no reason other than military why we should not be perfectly safe in allowing the future to develop along logical economic lines as in the past. The British and Dutch Colonies are well administered and property rights secure.

As to the military dangers to which I referred, it has always seemed to me that the practical way to protect the United States, in view of the fact that we will probably never be able to grow our rubber requirements within our own territory, is to create some sort of a revolving rubber reserve, either in the hands of manufacturers under Government supervision or by the Government itself. If this stock were equivalent to a year's supply, the carrying charges would not be excessively heavy and, in the case of an emergency, the Government would immediately place an embargo on the use of rubber for luxury purposes. In that way the consumption would be reduced enormously and at the same time, by in-

troducing more reclaimed rubber into compounds, it is quite possible that this country might carry on for at least two years without the necessity for depending upon any foreign sources. I have never personally attached tremendous importance to this military aspect, although the Army and Navy must necessarily take it into consideration. I have always considered a war between the United States and Great Britain as so unthinkable that if it should occur, there would not be much use in anything.

It is unlikely that there will ever be more than a temporary shortage of rubber in the world, but, as with any crop having a seven-year cycle, the

pendulum is certain to swing back and forth. The greatest danger that the industry faces today is a shortage some years hence, due to the unprofitably low prices for crude which have prevailed in the past two years. These have prevented new plantings which may be needed in the future to take care of the ever increasing consumption. The essential factor in order to secure adequate supplies for the future is a price for rubber high enough to make planting profitable. If this condition prevails, money will automatically flow to every tropical country that is economically able to compete and the world will have all the rubber that it needs.

The Struggle for Petroleum

By STANLEY K. HORNBECK

U. S. Department of State

FOR what I shall say, I should make it clear that the responsibility is entirely mine: I speak as a private individual, in no way representing and in no way committing the State Department. For statements of fact, I shall rely upon sources of information which are available in public print. The interpretation and implications will be mine. The conclusions may be yours.

There will be in what I shall have to say a good deal of mention of British policy and action. In nearly all of these matters, it happens that attention naturally focuses upon British and American policy more than on that of other countries, for the simple reason that we and the British are the chief competitors. Much that is said with regard to policies and activities of these two countries is, however, illustrative of what might be said with regard to several others.

The importance of petroleum arises from its essential uses—industrial, military, naval—as well as, in this country especially, luxury use; from its rapidly increasing consumption, its uneven distribution, its exhaustibility, and the competition which has developed, not only among private companies, but even among governmental agencies, for the acquisition and control of petroleum resources.

The United States was the pioneer and until 1880 almost the only important producer of petroleum. After 1880 Russia came into the field. Mexican production began in 1901, but was of little consequence until after 1910. Up to date the United States had produced about 60 per cent of all the petroleum known to have been produced in the world. At present, the United States produces nearly two thirds, and the United States, Mexico

and Russia are producing nine tenths of the whole of the world's annual production. Persia has recently swung forward to fourth place, and the Netherlands East Indies hold the fifth place.

THE COMPETITION FOR PETROLEUM

The United States produces annually and consumes annually more petroleum than all the rest of the world put together. This does not mean, however, that the United States has a monopoly or a majority of the petroleum resources. Far from it. I shall give figures in due course.

There has been a certain feverishness—and in some quarters bitterness—in the prosecution of the so-called “world race” or “world war” for petroleum during the past several years. It is easy to see how it originated. It has been in part a product of the war, a projection of the war psychology into the activities of reconstruction upon which the world—especially the British Empire and the United States—entered immediately upon the termination of the armed conflict. It has been in part a product of the dreams and apprehensions, the plans and ambitions of individuals. It has been occasioned in part by estimates of industrial and military necessity, estimates based on considerations of economic and political security. It has been due in part to underestimates and erroneous impressions with regard to the quantity and distribution of the world's petroleum resources. It has been in part the logical development from purely, or almost purely, economic causes: rapid increase in the demand for petroleum products for immediate consumption, with consequent increases in price, and in turn, demand for immediate increases in production.

The competition will continue, but in my opinion it should not be conducted with nervousness, bitterness or

hostility,—and I believe that careful disinterested and unimpassioned examination of facts and figures in the situation warrants that view.

The competition became a matter of public concern, so far as I have been able to understand it, when Great Britain and France discovered, during the war, the superlative importance of petroleum in the realm of mechanical power,—from which it was of course a short step to an enlarged appreciation of its value to and in commerce. At the same time the British and French discovered, or thought they had discovered, that the United States possessed a great deal of petroleum and they possessed little or none. Some Englishmen had been thinking of petroleum possibilities before the war, and the British Government's interest in the Anglo-Persian Oil Company had begun,—but oil-burning ships, including the submarine, and gasoline-burning motor cars and airplanes, in the military operations, demonstrated to the whole world the vital importance of petroleum. The British appreciation of the facts was expressed in Lord Curzon's statement: “The Allies floated to victory on a wave of oil.”

As soon as the British saw, they made up their minds, and, having made up their minds, they began to speak them—and to act. Mr. Runciman, President of the Board of Trade, said in Parliament, on January 10, 1916, that the future policy of Great Britain should be to control not only the coal of the world but the supply of oil as well. In an article published in the *Nineteenth Century and After*, in October, 1918,—an article said to have been officially inspired, Mr. Sydney Brooks wrote:

The best policy for us as a nation is to encourage the investment of British capital in oil enterprises abroad and to see by appropriate legislation that the companies

so formed remain in perpetuity under the British flag.

Sir Hamar Greenwood, then Head of the Department of Overseas Trade and in charge of the administration of petroleum supplies, speaking in Parliament on March 12, 1920, is reported to have said:

The tragedy was that only two per cent of the oil that came into this country was produced under the British flag, and eighty per cent came from the United States and Mexico.

. . . He could assure them that the Government and the Department over which he presided were fully alive to the vital necessity of oil and more oil under the control of the British flag. (Cheers.) There was not a single part of the world which was open to prospectors where oil was not being sought, and great efforts were being made to secure oil fields where the oil could be controlled from the source to the consumer by the British Government. It was vital for war purposes and equally vital for development in time of peace. No Government could do more than this Government was doing in exploiting these fields in different parts of the world.

Mr. Walter Hume Long, First Lord of the Admiralty, is reported to have said before the Institute of Petroleum Technologists on March 23, 1920: "If we secure the supplies of oil now available in the world we can do what we like; if Great Britain does not take advantage of her opportunities to acquire 'available' oil lands the Government will be blamed 'for inaction at this moment of great national importance; we are on the threshold of tremendous opportunities and the nation must take care to occupy the house, or others will take it and with it the key to all future success.'"

THE POLICY OF THE UNITED STATES

While these ideas were developing and being expressed in London, complaints of American oil interests con-

cerning discriminatory and exclusive practices which they were encountering abroad began to have effect in Washington.

On February 25, 1920, President Wilson approved an Act, known as the "United States General Leasing Act of 1920," designed as a protective measure. This Act relates to the disposition of public lands and is based, in respect to the treatment to be accorded to aliens, on the principle of reciprocity. Its governing provision in reference to petroleum reads in part as follows:

. . . deposits of . . . oil, oil shale or gas, and lands containing such deposits, owned by the United States . . . shall be subject to disposition in the form and manner provided by this Act to citizens of the United States, or to any association of such persons, or to any corporation organized under the Laws of the United States, or of any State or Territory thereof . . . and to municipalities . . . provided further, That citizens of another country, the laws, customs, or regulations of which deny similar or like privileges to citizens or corporations of this country, shall not by stock ownership, stock holding, or stock control own any interest in any lease acquired under the provisions of this act.

To the extent of 90.5 per cent, land in the United States is in the hands of private owners. The Government of the United States places no restrictions on the purchase or lease of private lands by aliens. The law from which I have just quoted applies only to the 9.5 per cent of our territory which is public land; it permits aliens to operate on or hold interest in operations on these lands—provided their governments do not discriminate against Americans; and it applies equally to all aliens.

On March 10, 1920, the Senate passed a Resolution calling upon the President to furnish information:

First, as to what restrictions, if any, are imposed, either directly or indirectly, by France, Great Britain, Holland, Japan, or any other foreign country, or the dependencies thereof, upon the citizens of the United States in the matter of prospecting for petroleum, or in the acquisition and development of lands containing the same, within the territory subject to the jurisdiction and influence of such countries.

Second, if such restrictions exist, what steps have been taken by the Government of the United States to secure their removal and equality of treatment in respect of citizens of the United States.

The Resolution contained further a request for similar information concerning the situation in and with respect to Mexico.

In reply, information was given showing that certain discriminatory and some exclusive practices did exist in certain of these countries, to the disadvantage of American interests and efforts.

THE FRANCO-BRITISH OIL AGREEMENT

In April, 1920, Sir John Cadman (British) and M. Philippe Berthelot (French), in conclusion of conversations said to have been going on for some time between the British and the French Governments, initialed at San Remo a memorandum of agreement "based on the principles of a cordial collaboration and reciprocity in the countries where the petroleum interests of the two nations can be amalgamated to advantage." This memorandum referred "to states or countries as follows: Rumania, Asia Minor, territories of the former Russian Empire, Galicia, the French colonies and the colonies of the British Crown;" but, it stated, "this agreement may be extended to other countries by mutual consent."

The agreement provided:

(a) With regard to Rumania:

The Governments of Great Britain and France will lend their aid to their respective nationals in all negotiations which are to be started with the Rumanian Government for the purchase of oil and petroleum concessions, and oil lands and shares and interests in oil enterprises in Rumania; and, All shares belonging to former enemy concessions which can be secured, and all other advantages drawn from these negotiations, will be divided on the basis of 50 per cent to British and 50 per cent to French interests; and, In the company or companies to be created in order to carry out the administration and exploitation of said shares, concessions and other advantages, the two countries are to have the same proportion of 50 per cent of the capital subscribed as well as equal representation on the board and equal voting power.

(b) With regard to Russia:

In the territories belonging to the former Russian Empire the two Governments will give their joint support to their respective nationals in their common efforts with a view to obtain petroleum concessions and facilities for export, and to assure the delivery of petroleum supplies.

(c) With regard to Mesopotamia:

The British Government binds itself to concede to the French Government, or the representative appointed by same, 25 per cent of the net production of crude oil at the current market price which H. B. M. Government may draw from Mesopotamian oil fields in the event of these regions being developed by government action; or in the event the Government has recourse to a private company to exploit the Mesopotamia oil fields the British Government will place at the disposal of the French Government a participation of 25 per cent in such company. . . . It is also agreed that the said petroleum company is to be under the permanent control of Great Britain.

(d) With regard to Northern Africa and other colonies:

The French Government will accord facilities to any British group or groups of good standing, which can offer the neces-

sary guarantee, which will operate in conformity with French legislation for the acquisition of petroleum concessions in the colonies of France or in French protectorates or zones of influence, including Algeria, Tunis and Morocco.

(e) With regard to colonies of the British Crown:

As far as existing regulations will permit, the British Government will accord to the French nationals who may desire to explore and exploit petroleum regions in Crown colonies, advantages corresponding to those France is granting to British subjects in the French colonies. This agreement was, of course, subject to ratification by the Prime Ministers of France and Great Britain respectively.

The fact that this agreement had been negotiated soon came to the attention of the American Government. Then began the inquiries from the American Government to the British Government and the communications between the two Governments on the subject of Mesopotamia, Palestine, the Turkish Petroleum Company and related matters.

In the years which have ensued, the San Remo Agreement has not been put into effect; the American Government has been given assurances that American petroleum interests will be given opportunity to participate, in so far as Great Britain and France are concerned, in petroleum development in Mesopotamia; and efforts of the allies to secure validation for the rights claimed by and on behalf of the Turkish Petroleum Company have been unsuccessful.

The Turkish Petroleum Company has had an interesting history. It appears that a good many years before the war the *Deutsche Bank* acquired from the Turkish Government a concession, in connection with the Anatolian Railway concession, to work the oil deposits in the vilayets of Mosul and Bagdad; that a British subject,

D'Arcy, had received promises from two Grand Viziers that he should have the oil fields of these two vilayets; that in 1912, British interests negotiated with the *Deutsche Bank* and acquired from it whatever petroleum rights it possessed; that these interests forthwith created the Turkish Petroleum Company and gave the Germans 20,000 fully paid-up shares in the new company; that the British and German Ambassadors proposed to the Turkish Government that a new concession covering Mesopotamia be granted; and that on June 28, 1914, the Grand Vizier informed these Ambassadors in writing that such a concession *would* be granted. The *British Peace Handbook* (No. 63) of 1918 (p. 34) says:

No definite settlement as to the terms of the lease was reached before the outbreak of the European War: and in November, 1915, the Anglo-Persian Oil Company, representing Mr. D'Arcy's interests, were informed that the agreement no longer possessed legal validity.

Since 1918 the oil fields in question have been under British control. They lie in what is now the "Kingdom of Irak." The former German shares in the Turkish Petroleum Company are in British custody. From the latest of the Turkish Petroleum Company's reports (January 12, 1923) it would seem that the British Government now has complete control of that company. The Anglo-Persian Oil Company has 76,000 of the shares, and the British Government's nominee, in whose name stands the block of former German shares, controls 40,000, making together 116,000 of the total 160,000 shares. But, in turn, the British Government apparently holds the controlling interest in the Anglo-Persian Company. In the Parliamentary Debates, in March, 1920, there appears a statement by Sir Hamar Greenwood in answer to a question:

The Government has a predominating interest in the Anglo-Persian Company, holding two thirds of the ordinary shares, besides debentures. I thought that was notorious. The Government does not interfere with the commercial arrangements of the company and will not unless, which, of course, will never happen, they are antagonistic to the interests of the British Empire. (Parl. Debates, Volume 126, March 1-19, p. 2367.)

The writer of an article in the *London Times* stated recently concerning the Anglo-Persian Oil Company, "The Company and its subsidiaries own all the issued share capital of the Turkish Petroleum Company, Ltd., [and a number of other companies named]."¹

AMERICA INSISTS ON THE OPEN DOOR

At Lausanne in November last (1922), Ambassador Child, representing the United States as an unofficial observer, made a declaration in favor of the full maintenance of the principle of the open door and against the conclusion of any secret or discriminatory territorial or economic agreements. It was clearly understood that he was referring, among other things, to the right of participation in the development of the Mesopotamian oil fields. The correspondence between the American and the Netherlands Governments concerning oil rights in the Netherlands East Indies, and the position taken by the American delegation at the Washington Conference in 1921-22 with regard to the open door in China, were fresh in the public mind.

The view and contention of the American Government with regard to the question of the Mesopotamia oil fields have been:

(1) That the Turkish Petroleum Company's alleged concession had been discussed between officials of the

countries concerned but no contract had been approved by the Turkish Government; and

(2) That, although the United States was not technically a participant in the victory of the allies over Turkey, nevertheless the United States participated in the general victory over the common enemy,—hence in the conclusion of peace with the Turks its desires, interests and rights should not be disregarded.

The American Government is desirous that practical recognition be made of the principle of the open door and equality of opportunity.

On July 17, 1923 (at Lausanne), after the Turkish delegation had refused to accept in the treaty a provision drafted with a view to confirming and validating contested concessions, Sir Horace Rumbold, representing the British Government, made a statement reported by the press as follows:

My Government considers all obligations contracted in 1914 as retaining their full force and as binding the Turkish Government on all territory which may remain Turkish after the Treaty of Peace. My Government . . . declares their firm intention to hold the Turkish Government responsible for any failure in the obligations then contracted.

THE ROYAL DUTCH-SHELL COMPANY

Now just a word about certain other great companies which figure prominently in the strategy of petroleum competition. The Royal Dutch Company (for the Working of Petroleum Wells in Netherlands India) was organized in Holland in 1890, for the purpose indicated by its name. With its subsidiaries, it has become one of the most powerful commercial organizations in the world. The Shell Transport & Trading Company, Ltd., was incorporated in England in 1897 to amalgamate various concerns engaged in transportation of oil and to expand that business. In 1907, the

¹ *London Times*, Jan. 10, 1923.

Royal Dutch and the Shell organizations effected a combination. In this it was agreed that their respective interests should be 60 per cent Royal Dutch and 40 per cent Shell. The Royal Dutch-Shell interests now produce petroleum not only in the Dutch East Indies but in the United States, Mexico, Venezuela, Argentina, Rumania, Russia and the British Far Eastern possessions. They have the largest petroleum transportation business in the world and they have also an almost universally operating sales organization.

The leading spirit of both the Royal Dutch and the Royal Dutch-Shell companies is looked upon as the Napoleon of the petroleum business. He has declared openly his intention of bringing the oil-bunkering business of the world under Dutch-Shell domination. He has had the backing of the Paris Rothschilds and of the Dutch and the British Governments. It is understood that he directs the operations of no less than a hundred companies operating within the Dutch-Shell organization. No such combination would, of course, be possible under the laws of the United States. A considerable portion of the total production of oil of the Dutch-Shell organization is from their holdings in the United States, the next largest share from Mexico, and the third from the Dutch East Indies.

THE WORLD'S RESERVES

Turning to some figures, we may consider briefly the question of the world's reserves of petroleum. We have here figures, in millions of barrels, for the known annual production and the estimated reserves. The figures for production may be relied on. They show the production of petroleum as of 1922.

The figures indicate that the esti-

mated reserves of the whole world total perhaps as much as 70,000,000,000 barrels. I may say, with all due respect to the geologists, who in fact say so themselves, there is necessarily a considerable amount of guess work about such estimates. Every little while the geologists revise their figures, and the tendency of the total is upward. But taking 70,000,000,000 barrels as the estimated total reserve, and taking the latest and best estimates for countries and regions, we find that the United States is credited with having about 14 per cent of the total; the British Empire with about 8.4 per cent; Persia and Mesopotamia, perhaps 8 per cent; the Dutch East Indies, 5 per cent; South America, as high as 18.4 per cent; Mexico, 6.4 per cent; and Russia, 8 per cent. These figures may be grouped: the United States and Mexico together, perhaps 21 per cent; the British Empire, Mesopotamia, Persia and the Dutch East Indies, about 21 per cent; South America, about 18 per cent; Russia, China and Japan together, about 14 per cent. This suggested grouping is on the basis partly of commercial, partly of strategic and partly of geographic association. It will be noted that a grouping of the United States' and the Mexican figures will give a figure approximately equal to the sum of the British and the Dutch figures.

Whether or not we accept the full implication of these estimates in trying to arrive at principles or formulae of policy in regard to petroleum, the figures are helpful in the effort to place the problem in proper perspective. The estimated United States' reserves constitute approximately one seventh of the world's total; those of the British Empire, about one fifteenth,—but if the Persian and Mesopotamian reserves be grouped with the British, the combination comes to one sixth.

Furthermore, the fact must always be kept in mind that the reserves of the British Empire have by no means been explored and surveyed in the same intensive degree as have those of the United States or even those of the Dutch East Indies. The actual production from the British Empire at present is said to come from a total area of less than 70 square miles.

Permit me to quote now from one of our leading geological experts, who was for a long time in the employ of British oil companies and is now with one of the leading American firms, and who has made long and intensive study of the geological situation and of the political factors. Dr. A. C. Veatch said in St. Louis last December (1922):

On the point of the oil resources of the world as a whole, these are large beyond any calculation possible at the present time. The situation is summed up in the statement that it is now demonstrated that commercial petroleum may occur in sedimentary rock of any age from the oldest to the youngest, and in any structural position. The sedimentary rocks occupy the greater part of the earth's surface. Those found in the United States are but a small part of the sedimentary rocks of the world as a whole. It is only in the United States that these sedimentary rocks have been extensively developed for oil, and, great as the development has been here, the oil in the sedimentary rocks of the United States is by no means exhausted. The conclusion may be stated proportionally: As the ultimate production of the United States is to the area of the sedimentary rocks of the United States, so the ultimate total oil production of the world is to the whole area of sedimentary rocks of the world.

Some geologists may, of course, object to the breadth and generality of this statement, but it is that of an eminent authority.

New oil fields are constantly being discovered, even in regions where earlier reconnaissances have disclosed no indication of the presence of oil.

This has occurred in several of our own states and it is happening in Mexico, in Trinidad and in Venezuela.

"But," says Dr. Veatch, "vast as the oil reserves of the world are, they must be developed . . . unless foreign oil fields are developed more thoroughly, the time must inevitably come when all nations will be seriously handicapped."

THE EXHAUSTION OF OIL RESERVES

I remarked a moment ago that 60 per cent of all the oil produced in the whole world has come from the United States. We have already withdrawn substantially a third of our estimated original petroleum heritage. In 1921, we withdrew 472,000,000 barrels, or 5 per cent of our estimated reserve; and in 1922, 557,000,000 barrels. On this basis, assuming the approximate correctness of the estimates, we would exhaust our supply in less than twenty years. But, as the geologists point out, this cannot be done in steady progression: it may take seventy-five years in which to discover *all* of our oil. However, they suggest, our maximum production may be reached in five years and from that time our production may be at a dwindling rate. At present, while we are depleting our reserves at the rate of more than 6 per cent per annum, the rest of the world is producing from its reserve of 50,000,000,000 to 60,000,000,000 barrels at the rate of less than six tenths of one per cent per annum. Our production in 1922 was 557,000,000 barrels, as stated; that of the rest of the world was 297,000,000 barrels.²

When we turn to figures of consumption, we find that the United States, while producing two thirds of the annual world total, consumes even more than it produces. We have more than 90 per cent of all the automobiles in the world. We have the largest oil-

² World production, 1922, 854,000,000 barrels

burning marine. Our consumption of petroleum products amounts to five barrels per capita per annum. We have, therefore, the greatest actual, the greatest real interest, from the point of view of established economic need, in the petroleum problem: petroleum is of more immediate vital concern to us than to any other country, or, on the basis of present figures, to all the rest of the world combined.

We imported in 1920, 106,000,000 barrels of oil; in 1921, 125,000,000 barrels; in 1922, 127,000,000 barrels. As compared with this, Great Britain imported in 1920, 23,580,000 barrels, of which 61 per cent, in quantity, came from the United States, 37 per cent from miscellaneous sources and less than 2 per cent from British territory; in 1921, 33,070,000 barrels, of which 51 per cent came from the United States, 47 per cent from miscellaneous sources, and less than 2 per cent from British territory; in 1922, 34,660,000 barrels. This, I judge, is the origin of the erroneous impression which prevails widely that Great Britain possesses only 2 per cent of the world's petroleum.

COMPETITION IN PRODUCTION

Everyone who has studied the question of petroleum production knows that exploration and exploitation of petroleum resources have been undertaken chiefly by British, American and Dutch interests, and that here you find the big operating companies, those who have had the widest experience of the petroleum business and who have been adventuresome enough to go all over the world seeking oil where it may be found. Operators point to the vastly greater expense of exploring for and exploiting oil in unproved and remote regions than in countries where surveys have been made and where anybody with a few thousand dollars

can drill for oil if he chooses. A number of very interesting articles have been written explaining factors which need to be appreciated in order to understand the conditions under which the various oil fields are discovered and operated. Space forbids going into this subject, but a moment should be given to certain facts which affect the competition among the chief competing companies no matter in what fields.

The conditions of competition as among American, British and Dutch companies are essentially these:

(1) The American companies operate as strictly private enterprises. They compete with each other both at home and abroad. The United States Government makes no choice among them and has no connection with or financial or commercial interest in any of them.

(2) In Great Britain, however, some companies operate as a combination of private and governmental enterprise. Coöperation—particularly in foreign enterprises—is officially and privately encouraged and is to a considerable extent a fact. The Government owns stock, encourages pioneering and gives special assistance to certain companies at certain moments and in certain regions.

(3) In the Netherlands, substantially the same is true. There, in addition, the stock of the leading oil company, the Royal Dutch, is very widely owned—especially among the official class—which gives the company a very wide support as substantially a national enterprise, not, it should be noted, as a government enterprise but as a great national interest.

Appeals have been made for international governmental action to bring about some regulation of petroleum competition. Little, however, if anything, has been attempted in this direction. Suggestions have been made that the operators themselves should get together and more or less distribute

and parcel out the exploration and exploitation of undeveloped regions. There are tendencies today on the part of some of the leaders in the industry to follow this course. You have seen some mention in the press of indications of this with respect to the Mesopotamia problem.

With reference particularly to certain economic and political aspects of the problem, let me quote once again from Dr. Veatch:

Proper development by a competent company is of greater benefit to the country developed than to the company concerned. A country grows by the development and utilization of its resources. . . .

For a great nation to say, "Since oil is a prime necessity to us in time of war, the oil resources of our state must be developed solely by our own nationals" overlooks the economic and practical points: that very large sums are required to develop new oil regions, and that much of the money spent in prospecting is not productive; that, in case of war, only developed oil fields have practical value and that should there be a war, any developed oil field is immediately mobilized by the country concerned, irrespective of whether the development was due to domestic or foreign capital. It is

better economics to have the losses of development shared by foreign capital than to have the whole loss fall at home. The most complete national self-interest and self-advancement says, "Throw the doors wide open."

That is the view of a private oil expert.

THE POLICY OF THE UNITED STATES

For a statement of the policy of the United States in regard not alone to petroleum but to the whole field of commercial enterprise I cannot do better than quote the Secretary of State. At Cleveland, on November 2, 1922, Mr. Hughes said, in part:

The principles of American foreign policy are simple and readily stated. We do not covet any territory anywhere on God's broad earth. We are not seeking a sphere of special economic influence and endeavoring to control others for our aggrandizement. We are not seeking special privileges anywhere at the expense of others. We wish to protect the just and equal rights of Americans everywhere in the world. We wish to maintain equality of commercial opportunity; as we call it, the open door.

DISCUSSION

BY SIR EDWARD GRIGG, M. P.

There is one thing that I should like to bring to your attention, and that is the special reason why the British Government have shown this peculiar interest in the development of oil. It is not in the tradition of the British Government to get interested in commercial enterprise. In fact it is against the whole age-long practice of the British Government to have anything to do with commercial enterprise. I think there are only two examples where the British Government have become directly interested by participation in matters of this kind. The

first was a long time ago in the seventies, when we acquired an interest in the Suez Canal, and the next example is in 1920, when the British Government became indirectly interested in the Anglo-Persian Oil Company. That is an interesting fact in the development of the economic policy of the British Empire. And if you will examine well you will notice that the motive is the same in both cases: both are important to imperial security.

When you were talking about the existing supplies of oil, about 60 per cent of the existing supplies are in the

United States and only 2 per cent in the British Empire.³ There is absolutely none in the British Isles. In the years immediately preceding 1914 we lay under a considerable menace and oil was a question of security—a question on which our life or our death as a nation or an empire might depend. It was really, therefore, the same situation in regard to oil as it was in the case of the Suez Canal, and for the same reason I think the Government must take and continue to take a great interest in oil. In the United States you have many times as much oil as can possibly be required for the mere purposes of security. The great surplus which you enjoy is for industrial purposes or some for luxury purposes. Those are not quite so important as life and death questions of defense and security. Therefore you will understand that there is a very special pressure and our Government has a special interest in the production of oil.

Now as to the reserves, we have had interesting figures. Those figures represent, I understand, the oil reserves of various countries in groups. But they do not represent one very important fact, and that is the difference between oil actually owned by a nation in its own territory and oil resources controlled by the capital of that nation but not in its own territory. While the oil reserves of the British Empire seem very large by these tables, yet a large portion is in territory where the British companies have an interest only from the point of view of financial concessions, which is not the same thing as oil in American territory. It is something more distant; it is something that may always be affected by conditions over which you have no control. You may therefore expect that the British Government will continue to take—I am speaking absolutely un-

³[i.e., actual present production.—Ed.]

officially and not, indeed, as a supporter of the present Government, and therefore entirely on general principles—but I think you may take it as a certainty that British Governments, whatever their character, whether they be Conservative, Liberal or Labor, or a bit of both, will take a great interest in this question of foreign oil resources and will do their utmost to see that where British capital has an interest that interest is not lost.

I think it was Dr. Hornbeck who in talking of the consumption of oil pointed out that 90 per cent of the motor cars in the world are owned in the United States, and he put that forward as a reason why the United States has a greater claim to oil than Europe. Other nations will find it rather difficult to accept that reasoning. I doubt if we would accept it as one of the laws of nature that every American should have a Ford car, but not every Frenchman or Englishman.

There is only one point I would like to mention and perhaps Dr. Hornbeck can enlighten us upon it. He gave us a great deal of information about English and Dutch oil companies. I waited until he got through to hear the name of a great American corporation, the Standard Oil Company, but he did not even mention it. Are we to infer that while we have been studying oil at Williamstown, the Standard Oil Company has silently and suddenly gone into liquidation? Or is it this—that the State Department has never even heard its name?

Dr. Hornbeck: With regard to the Standard Oil Company, I assumed that my American audience knew a *great deal* about that company, and I presumed, from what I know of the experiences of Standard Oil in trying to get into India, that the British knew *all* about it.

The point which Sir Edward made in

regard to oil not being actually in hand is exceedingly well made. If you want oil tomorrow you want it where you can get it, and not 5000 feet under the ground, with no drilling yet made toward it. But when it comes to the *resources* the statement has so frequently been made that Great Britain possesses only 2 per cent of the world's resources—I tried to get that matter understood when I worked out the percentages, and I think the figures

given are fairly reliable on a comparative basis. It appears that the United States has approximately 14 per cent of the world's resources; the British Empire has approximately 8 per cent, or 8.4 per cent; and then if you want to add the Mesopotamian and Persian resources you add another 8 per cent, which would bring the British *controlled* total percentage up to 16.4 per cent. That is speaking strategically, Sir Edward.

Our Nitrogen Problem

BY HARRY A. CURTIS

Department of Commerce

THE Chilean nitrate industry is a striking example of the control of price of a raw material by the producers thereof. On account of the fact that the only large workable deposit of nitrate in the world occurs in Chile, and because of the fact that the world demand for nitrogen compounds far exceeds the supply from sources other than the Chilean nitrate, it has been possible to develop in Chile a most effective organization for controlling the price. This organization is known as the Chilean Nitrate Producers' Association, and it is this Association, its methods, and its effects on the industry which I shall discuss.

THE NEED FOR NITROGEN

As a background for a discussion of the Chilean nitrate industry and the association which controls the price of nitrate, I want to discuss first the general situation regarding supply and demand of nitrogen—or, as we say, fixed nitrogen, meaning nitrogen in compounds—in the world. In order to do that I shall have to digress momentarily into a number of topics which at first may not seem directly related to the subject before us, but

by these digressions I hope to show what our interest is in the Chilean nitrate and why we are particularly interested in the price which is fixed from year to year for that nitrate.

My first digression, then, will be to American agriculture. I need not remind you that every growing plant takes from the soil certain inorganic constituents, nitrogen compounds among others. Most soils contain an abundance of these inorganic constituents save three; namely, potassium, nitrogen and phosphorus. There are certain soils in the United States which are deficient in potassium and must have an addition of that element in order to produce large crops: Many more soils are deficient in phosphorus and must have an addition of that element in order to produce crops, and practically all soils in the United States are deficient in nitrogen. Broadly speaking, nitrogen—I mean, of course, nitrogen in compounds—in the soil is the limiting factor in agricultural production. In order to maintain the fertility of the soil, then, with crops year after year removing this nitrogen, it is necessary to replace it by some means or other. We can replace part

of it by growing certain plants which have the power of taking the free elementary nitrogen in the air and converting it into nitrogen compounds over and above their own use, leaving some of it in the soil. Such plants are known as legumes, and the cultivation of legumes forms an important part of agricultural practice in the United States. However, it is not possible to raise legumes over large enough areas of the United States for that to be a solution of the problem. There are also economic reasons why that cannot be done profitably. We have to come back, then, to the addition of nitrogenous materials to the soil in order to maintain its fertility.

In the United States our population has been growing rapidly and agriculture has been called upon to keep pace with food production. We have not done that by maintaining the fertility of the soil through proper application of nitrogenous fertilizer, but we have done it by extending our agriculture into the fertile fields of the Middle West and abandoning the poorer soils of the East. In that way we have kept up our food production and the fact that the soils of the United States are being depleted of their nitrogen compounds and the fertility of the soil is decreasing, has, therefore, been masked by this movement of agriculture into the fertile lands of the Middle West. The end of such a program is at hand, first, because the amount of land in the United States which can be brought under cultivation is now small compared with what is already under cultivation; and second because under present economic conditions with higher transportation costs and higher labor costs, it is not profitable to increase the acreage under production in the United States.

There is only one solution practical, and that is through the increase of

production per acre by intelligent and systematic application of fertilizers, and this calls for a supply of nitrogen cheap enough so that it can be applied to the soil in adequate amounts. At this time, unfortunately, the price of nitrogen is so high that it cannot be applied to the soil profitably except in the case of certain crops, despite the fact that the price of nitrogen today is relatively lower than it was before the war. What we do with this nitrogen problem within the next ten years will probably determine to a large extent whether the standard of living in this country can be maintained at its present level or whether it will sink to the level of European countries. We, therefore, have a common interest in this nitrogen problem and in the Chilean nitrate industry and in the prices which may be fixed in Chile for Chilean nitrate, inasmuch as the price of Chilean nitrate controls the price of other forms of nitrogen the world over.

So much for the agricultural side of it. Let me speak for a moment regarding the matter of national defense. Nitrogen is not only a life-giving element, as it is in agriculture, but it is a life-destroying element, as it is found in explosives and military propellents. Every high explosive is a nitrogen compound; every military propellant is a nitrogen compound. During the war there was great anxiety in the allied countries regarding the supply of nitrate. We had a whole fleet of vessels at the end of the war moving up nitrate from Chile, chiefly into the United States, where it was manufactured into munitions of war. Germany was cut off. But when Germany had developed methods of extracting the elementary nitrogen from the air and converting it into nitrogen compounds, it made her independent of the Chilean nitrate supply, and it was only because of this independence that

Germany was able to continue the war. From a purely scientific standpoint it is unfortunate that conditions in Germany since the war have prevented her showing the world whether or not she could compete with Chilean nitrate. The fact that one of her largest producing nitrogen plants is located in the Ruhr district and is now closed, and the fact that coal is so scarce in Germany that it has been difficult for her to keep in operation the other nitrogen plants, has prevented her from being able to prove to the world definitely whether or not she could compete with Chilean nitrate.

Immediately after the war the Germans declared a prohibition on the Chilean nitrate coming in. Later it was found desirable to remove this prohibition and to allow a specified amount to come in. Germany, however, was not able to buy and bring in that amount because of economic conditions in that country. Since the war every one of the allied nations have been engaged in trying to develop independence of this Chilean nitrate supply, particularly as a matter of national defense. To have the source of nitrogen several thousand miles away is a dangerous proposition. It is probable that the United States today could arrive at independence in case of emergency. During the war we built a very large nitrogen-fixing plant which was eminently successful so far as fixing nitrogen was concerned. Unfortunately, it cannot fix nitrogen at a price low enough to compete today with the Chilean product and the plant has remained closed since the war. However, that plant is a tremendous military insurance and whatever may be done toward turning it to peacetime use, the Government should maintain it for its war-time value.

Nitrogen not only plays an important part in agriculture and national

defense, but in one form or another it enters into a large number of our domestic industries. Manufacture of explosives requires a large amount of Chilean nitrate. These explosives are used for road-building, mining, quarrying, etc. There are a number of metallurgical processes in which fixed nitrogen is essential. It is of the greatest importance in the manufacture of dyes, and of artificial leather, used so extensively in automobile upholstery. It is also used in the manufacture of artificial silk. In fact, only about 60 per cent of the enormous quantity of Chilean nitrate which is brought into this country finds its way into agriculture; the balance in peacetime goes for industrial uses.

There is only one real competitor of Chilean nitrate in the world today outside of a few countries like Germany and Norway, and that is the fixed nitrogen obtained from the processing of coal. That is our chief domestic source of fixed nitrogen. When coal is burned as such, the nitrogen is lost, but if the coal is coked or carbonized before being used, the nitrogen can be recovered in the form of ammonia or ammonium sulphate and turned to useful purposes. We produced about 500,000 tons of ammonium sulphate last year and most of that went into American agriculture. We also have a supply of fixed nitrogen from organic waste materials such as fish scrap, for instance, and cotton-seed meal, leather scrap and various other organic and vegetable waste materials. These, too, find their way into agricultural fertilizers. In this country we are also producing a small amount of fixed nitrogen from the air. There are two little plants in operation, one near Syracuse, New York, making anhydrous ammonia and one at Seattle, making sodium nitrite. But these are so small as to have no effect whatever

on the market. After all is said and done, the supply is inadequate and we must go to Chile for the balance. I have perhaps digressed enough from the main topic to show that our interest in the price of nitrogen for agriculture and for our basic industries and for national defense is a proper one and that our interest in the price of nitrogen is a proper interest. And the price of nitrogen is fixed yearly at Valparaiso, Chile, by the directors of the Chilean Nitrate Producers' Association.

THE NITRATE INDUSTRY IN CHILE

Let me speak next of the development of the nitrate industry in Chile. The nitrate beds are located in northern Chile, in a desert country. The deposit lies several feet below the surface and the caliche or crude nitrate must be brought up by blasting. The raw caliche is then transported to the plants and the nitrate extracted, dried and put in bags for transportation. It is taken down to the seacoast by rail and carried by lighters out to the ships. There are no ports from which it can be loaded. The working of the nitrate beds began in 1830, records showing that 850 tons were taken out in that year. By 1860 the industry had grown to 71,000 tons; not very much, you see. Chile won the nitrate lands as a result of the war she waged against Peru and Bolivia in 1879-82, and from that time on the development of the industry was rapid. By 1890 the production had reached 937,000 tons and by 1914 over 2,670,000 tons of nitrate were going out.

There has been some discussion as to how much nitrate there is left in Chile. In 1898 Sir William Crookes estimated that there was a supply in Chile for only about fifty years. Well, he has proved to be at least 400 per cent off. The supply in Chile will last for no one knows how long, but at least

100 years and perhaps longer, particularly if we find out how to work profitably the lower grade ores. There is plenty of nitrate down there for several generations, anyhow.

In the development of the Chilean nitrate industry there has been capital involved from various nationalities—Chilean, and British of course, German, Slavic, and to some extent American. There has been in recent years an interesting drift of control from other nationalities to Chilean; in the first place, probably because the industry has been profitable and there have been capitalists developed in Chile who have been able to buy out the foreign interests. Another factor is that the early generations who went to Chile from other countries in the interests of nitrate have become domiciled in Chile and that would naturally result in a shift of control to Chile. There has also been a shift of company registry to Chile from various foreign countries because of more favorable conditions under the Chilean Government. That has been particularly true of the German companies, who have transferred all their registries to Chile within the last year.

PRICE CONTROL IN CHILE

There have been organized in Chile from time to time associations aimed towards controlling production and prices. One of the earliest of these was the Permanent Nitrate Committee, which was organized in London by the English companies in 1889, and this was later extended to include all European dealers in nitrate.

In 1894 the Nitrate Propaganda Association was organized. This was made up of four representatives of the coast companies in Chile, four representatives of the English companies and two representatives of the Chilean Government. The functions of this

committee have been taken over by what is now known as the Chilean Nitrate Committee, or more commonly, the London Committee. The principal activity of these earlier associations was in carrying out educational propaganda regarding nitrates. For thirty years at least these committees have carried on this educational work and there are today some seventeen or eighteen delegations in about twenty-nine countries in the world, trying to increase the sale of Chilean nitrate. The present Producers' Association (which is a follow-up of several earlier ones), known as the Chilean Nitrate Producers' Association, was organized in 1919 during the period of depression that followed the war. At the beginning of the war there were about fifty thousand people in Chile engaged in the nitrate industry, and when the European war came there was a short slump, but then conditions picked up again and the inevitable war demand carried the industry to its peak of production in 1917.

At the end of the war there were about sixty thousand workers in the field and the immediate demand for nitrate being cut off, there was, of course, a slump. During this time of depression the producers got together to see if they could do anything to help out the situation. They finally organized on January 10, 1919, this Nitrate Producers' Association, which was to continue for five years. That would have ended January 10, 1924, but since that date came in the middle of the nitrate year, it was recently decided to continue the Association under the present regulations up to the end of June, 1924. In the meantime, there will be up for discussion the question of whether or not to continue the Association. When the Association was organized in 1919, it did not include all the producers, and from that

time up to today there has been constant effort to bring in these independents, and that effort has been successful. Today the Chilean Nitrate Producers' Association includes every producer of nitrate in Chile except the American companies, which have been allowed to remain outside of the organization because of the Sherman anti-trust laws. These American companies represent only two or three per cent of the total production and find it to their advantage to live up to the regulations of the Association.

The price fixing is done by the Board of Directors of the Producers' Association, which numbers fourteen, and to this board are added four representatives of the Chilean Government. The statutes of the Association provide that in May or June of each year the Board of Directors shall meet in Valparaiso and fix the price of nitrate for the coming nitrate year. The Association has advices from the London Committee as to the state of the market, the likely demand for the coming year, and the price which it thinks the market will stand without serious reduction in the use of the nitrate.

At the price-fixing meeting of the directors in Chile there always arises a three-cornered discussion between the representatives of the low-cost producers, the middle-cost producers, and the high-cost producers. The cost of production of nitrate in Chile varies greatly for several reasons: first, because of different efficiencies that obtain in the plants, the newer plants, of course, being the better, and because some companies own richer nitrate lands. For various reasons, the cost differs greatly. The producers who are ready to produce nitrate at a very low cost want the price put low enough so they can move large quantities of material. The middle-cost companies want a somewhat higher price. Those

who have inefficient *oficinas* or poor nitrate lands want a price put high enough so they can operate. The inevitable result is a compromise whereby a middle price is fixed, and, of course, this results inevitably in complaint from several quarters. However, the high-cost producer is not quite out of the game after the price is agreed on. He may not be able to manufacture profitably at that price, but the statutes of the Association provide that the total orders received shall be allotted to the various producers in the Association on the basis of their production capacity. The high-cost producer receives his allotment and then turns around and sells it to the low-cost producer. This practice has been one of the points of criticism, probably the most serious, leveled against the Producers' Association, both within the Association and without. The low-cost producer feels that, since he is able to produce, he should have the market without having to pay this high-cost fellow for his allotment. And, of course, the ultimate consumer of nitrate has a just cause for complaint because he feels that the price he pays for nitrate includes interest on inactive capital. Whether this regulation of the Association can withstand the reorganization which will occur next June is a live question in Chile today.

THE BRITISH INFLUENCE

There is considerable interest everywhere in the part that British capital is supposed to play in fixing this nitrate price. This is a delicate subject to take up. If we consider the registry of the companies, we find that only about 25 per cent of the nitrate produced in Chile is produced by companies of British registry. This does not represent, however, the sum total of British influence in price fixing because the British have large holdings in some

of the Chilean companies. In fact, they own some of the Chilean companies outright and in others they have large holdings. The British also own the nitrate railway and various other things, and, of course, all the financial arrangements, due to the way in which the industry has been developed, center in London. However, all said and done, it seems clear that the British do not control the fixing of prices of nitrate in Chile. It is controlled by the Chilean Nitrate Producers' Association, in which the British wield considerable influence but not the dominating influence. I give that as my personal judgment of the situation, and herein I want to say that I differ from a recent publication of the Department of Agriculture in which it was implied that the control was in British hands. I think one of the strongest arguments that the control is not in British hands is that the British companies which have home offices in London complain at their meetings, sometimes rather bitterly, regarding the price which is fixed in Chile for the nitrate, believing that they are entitled to larger profits.

THE INTEREST OF CHILE

The relation of the Chilean Government to this nitrate industry is very close. Early in the history of the industry the Chilean Government fixed a tax of 33.8 pesos gold per metric ton, which amounts to about \$12.33 per metric ton, or about \$11.19 per short ton. This represents somewhere between 25 and 40 per cent of the cost of the nitrate alongside ship in Chile. We feel that that is rather a high export tax, but the Chilean Government believes that that is only a just tax that natural wealth should pay towards the support of the Government, and they argue that Chile is being depleted of this resource, which, of course, is true. This tax has always been the mainstay

of Chilean finance. In fact, Chilean exchange goes up and down with the condition of the nitrate industry. The tax derived from nitrate represents about 60 per cent—in 1920 it was 50 per cent, I believe—of the total revenue of the Chilean Government. You can, therefore, see that the Chilean Government is vitally interested in this nitrate industry and throughout its development has taken an active part in it.

The Government has taken various steps to promote the industry. During dull periods, for instance in 1914, the Government advanced loans to the operators there in order to keep their plants running and in order to stabilize the industry. The nitrate producer can now store his nitrate and on the basis of his certificate of storage can obtain a loan from the Government which will enable him to continue to produce in dull times, and the loan will be repaid when the nitrate is sold. The Government is also supporting research on the problems of extracting Chilean nitrate more cheaply. I may say that the operation of the industry is rather inefficient, all told. There are some fairly efficient *oficinas* or plants in Chile but taking the industry as a whole we may say it is inefficient.

The Government's part in the Association we have already mentioned; it has four representatives on the Board and these four representatives always side with the low-cost group because Chile's obvious interest is to move nitrate. The Government also is apprehensive of the competition which will certainly come sooner or later from the air-nitrogen industry, and is anxious to place a price on nitrates which will discourage that competition so far as it can be done.

THE FUTURE OF THE INDUSTRY

You are possibly interested in what may be the future of the industry. In

the first place, competition is bound to develop. The process of taking nitrogen from the air and manufacturing it into useful compounds is a very difficult one, and although some twenty years have now been devoted to it, it is not solved completely yet. It will be a few years still, probably, before serious competition develops between the product from the air and the Chilean nitrate.

It is possible to produce nitrate in Chile considerably cheaper than is now being done. We find, for instance, that of the nitrate which is present in the raw ore, 25 to 40 per cent is not recovered. We also find that their methods of heating are wasteful. There is also the unnecessary overhead that I have mentioned in carrying along high-production cost *oficinas* which should be abandoned to make way for the lower cost producers. It is also possible that under conditions of competition the companies would be willing to take less profit. I need not say to you the well-known fact that the nitrate business has been a very profitable proposition.

There are certain factors, however, which will operate to increase the cost of nitrate in Chile: notably, higher wages and higher handling costs in general. There is the possibility, somewhat remote perhaps, that the Chilean Government will reduce the export tax, which, as I pointed out, represents 25 to 40 per cent of the cost of getting nitrate out of Chile. However, we must remember that that tax is a very important asset to Chile and we must not expect the Government to reduce it as long as the industry is not really threatened. We might make a very shrewd guess that the Chilean Government would reduce the tax in order to save the nitrate industry. Considering the general inefficiency of the industry and the chances for improvement, and

the general possibilities of cheaper price of nitrate from Chile, it is evident that Chilean nitrate will offer strong competition to fixed nitrogen from other sources.

WHAT CAN BE DONE ABOUT IT

The question of what the United States Government can do about it, is a difficult one. I do not want to get into a discussion of the Government's nitrate plants, because that would certainly exceed the limits set for this discussion, but the Government cannot, nor can anyone else, operate the Government air-nitrogen plants today in competition with Chilean nitrate. The only way in which we could hope to produce fixed nitrogen at the Government's plants and sell it as fertilizer at a price lower than the Chilean nitrate under present conditions would be to subsidize the manufacturer, either by subsidizing a company doing it or by the Government itself doing it under conditions of subsidy. It is not likely

that the Government will do it because that seems to be pretty well established as contrary to American principles. There probably would be not much objection to the Government's subsidizing the industry if it could be directed solely against our import of nitrate. In other words, if that subsidy could be carried out so as to produce only the raw materials for fertilizer in this country, that might be possible. Beyond that there does not seem to be much to do at the present time except to await the development of the air-nitrogen industry. That is going forward rapidly and it seems that within a few years—just how soon no one can tell—it will be possible to take the nitrogen from the air, which is there in enormous quantities, and manufacture fixed nitrogen cheap enough to compete with Chilean nitrate. We are looking forward to that day because of the very great need which exists for cheaper nitrogen in this country.

DISCUSSION

By CHARLES M. PEPPER

Director, Chile-American Association

I shall speak in one sense as the representative of American interests in Chile, which would include the American companies that have nitrate investments there, that produce from 3 to 5 per cent of the output; in another sense as the representative of American companies and firms generally who are interested in promoting good trade and economic relations.

The cost of the nitrates today is lower, or is about the same that it was before the war. While the costs of production have not decreased but have increased, the American farmer today is able to get his fertilizers as cheaply as he could in 1914, virtually. In Jan-

uary, 1914, the price was about \$2.25 a hundred-weight; in July of that year it was \$2.12½. This year in January it was \$2.57 a hundred-weight, and in July it was \$2.42, a slight difference, but relatively it is about the same. So the American farmer today cannot complain of the Chilean nitrate prices.¹ They have remained almost level while everything else has gone up. He complains that his agricultural implements,

¹ The statement assumes that the prices of 1914 were fair. It may be noted also that the nitrate producers have just recovered from the effects of setting their prices too high in 1920. Like some of Kipling's little devils, they found that they "could not sin to the height of their desire."—B. B. W.

everything entering into farm labor, is about double. It is fair to attribute the fact that nitrate prices have not gone up to the influence of the Chilean Government and the Chilean Nitrate Producers' Association. We are all a little "leery" of price-fixing combinations, national and international. But I think without question the effect of the Chilean Nitrate Producers' Association has been to stabilize prices downward, because relatively they are downward. That is one result in which it justifies itself. It has kept nitrate below any other fertilizer, natural or artificial. Nature has provided, as I understand it, three great sources of fertilizing for plant life. One is phosphate rock, of which we have our share. Another is potassium salts, of which Germany and Alsace have virtually a monopoly. And the third is Chilean nitrate.

Dr. Curtis has not exaggerated the importance of those factors to the future of American agriculture. The question is coming up, of course, not only as to nitrates from the air but as to other fertilizers. He mentions sulphate of ammonia, and it is also worthy of note that the price of the nitrate is lower by relatively a dollar a hundred-weight than sulphate of ammonia.² That shows the possibilities of Chilean nitrate production.

I was very glad indeed to hear his comment, courteously made, on a report from another department of the Government that the prices were fixed in London. Unfortunately, some of our newspapers, in publishing a synopsis of that report, had it that we were paying tribute to the London committee. I was in Chile last May during all that

squabble over prices, and can fully confirm Dr. Curtis in saying that the London committee did not fix the price. London fixes the price of a good many raw materials, but does not fix the price of nitrate. When it comes to nitrates there is the usual squabble between contending interests holding out for high prices, low prices and medium prices, respectively, but the result is that London is turned down.

Last May, when this squabble was going on—and it was worse than any previous years—there was a strong demand for high prices. The last year had been so good that a very large element wanted to raise the prices. It is not disclosing any secrets to say that the real pressure for very high prices came from London and the so-called London committee, and it was the Chilean owners and the other foreign interests which very largely overcame that. But the real influence, after all, was the Chilean Government. Whether they call it moral coercion or bulldozing, the Chilean Government has maintained moderate prices for nitrates, and it was its influence last May, undoubtedly, that caused the present scale to be fixed, which is similar to that of last year and is moderate.³

Now on the big, broad, general proposition as to the future of nitrates, they are Chile's greatest national asset. She has copper and other assets of much value, but in some years 60 per cent and some years 40, or an average of 50

² Sulphate of ammonia contains about 20 per cent of nitrogen; sodium nitrate from Chile (95 per cent pure) contains about 15 per cent of nitrogen. As fertilizers they compete on the basis of their nitrogen content.—B. B. W.

³ Both Mr. Pepper and Dr. Curtis seem to assume that if the price is fixed in Chile instead of in London, and if it is not fixed at the highest price demanded by a considerable proportion of the producers, it is therefore a moderate price of which the consumer (at least in Mr. Pepper's opinion) should not complain. The assumption seems equally valid that the consumer is justified in complaining of any combination which fixes prices at any level higher than the lowest at which a large number of producers are willing to compete.—B. B. W.

per cent of her revenues, come from the nitrates. So naturally she is bound to take an interest in whatever relates to them.

The Chilean form of government is somewhat more paternal than ours,—although if our present tendency is continued I do not know that it will be. Let us assume, then, that the nitrate industry being so vital to Chile, the Government has a right to use its influence to regulate it. For that reason the Government insists on four members of the directorate. It insists on knowing what is being done. Its policy is to insure moderate prices. As Dr. Curtis says, the Chileans recently have begun to buy back some of the interests in those nitrates with which they parted. They had a feeling that a great asset was getting away from them. This was not exactly true, but that a very large element went into foreign hands and that as a consequence of the war some of it is going back into Chilean hands is true. I do not know the per cent of Chilean ownership, but it is larger than it was four years ago and is becoming more and more a Chilean industry. Three to 5 per cent would represent the United States' proportion to the nitrate production. We have, however, a very much larger interest, because as merchants some of our people handle the product. As manufacturers of explosives a considerable quantity is handled by our people, who have their own *oficinas*.

The question of efficient production is constantly before the nitrate owners. I agree to some extent with Dr. Curtis that as a whole the industry is not as economically managed as it might be; it has not the economic efficiency that it should have. A few weeks ago one of the engineers of one of the great American companies which is trying out new processes in nitrates said to me: "The trouble is that the whole in-

dustry is not conducted on the basis of scientific production, but it just jogs along." Some of the plants are as efficient as are industrial plants in the United States. That is especially true of the *oficinas* controlled by the American companies, by some of the English and by some of the Chilean companies. The industry as a whole is making progress.

As to the prices in the future at which nitrate can be sold, I do not think anybody can make a good guess, because we do not know the conditions that may develop. There will be no disagreement in Chile with the proposition that the United States is entitled to provide for the manufacture of nitrates as a means of national defense. There will be no question that if we choose to subsidize nitrate plants at heavy expense in order to give the farmers cheaper nitrates, we have a right to do so. The matter is a practical one, however, whether the necessary subsidies will be within limits which the American people will justify.

Now, in conclusion, I only want to say a word about the mutual interest, after all, of nitrates to Chile and the United States. To Chile they are almost the breath of life, and for us they are becoming for our agriculture almost the same. But there are several other aspects. We may put on a very high tariff and resort to subsidies and shut out Chilean nitrates entirely. I do not think there is any probability of that. But there would be a reverse action if it were done. The income from those Chilean nitrates goes to the purchase of American machinery and American supplies; some of it goes to pay the interest on the loans which Chile has contracted in the United States. This year a million dollars or more will go into the Panama Canal tolls. Our imports were about 900,000 tons in the last fiscal year. That means a good

deal to the United States. If that figure is maintained, as is probable, the benefit will be mutual.

It seems to come down, after all, to the question of gradual reduction of the price in Chile. Of course Chile is going to get what she can within moderate limits. But with the Government there virtually controlling the price policy, I think the consumers in the United States can be sure of a fair price for nitrates. It may be shaded a little below what it is. Certainly there is

nothing to indicate that it will go up. Our American companies in Chile have been criticized at times because they did not enter the Nitrate Producers' Association and help to regulate the price. But as Dr. Curtis has said, they cannot do this under the Sherman anti-trust law. Generally the interest of the American people in the nitrates of Chile is to encourage production, to help stabilize prices downward, and to recognize the intimate relation between trade and the nitrate industry.

The Importance of the Near East in Problems of Raw Materials and Foodstuffs

By EDWARD MEAD EARLE, Ph.D.

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THE Ottoman Empire, as it existed before the Great War, was of supreme economic importance to the industrial nations of Europe. The Sultan's dominions were rich in certain important raw materials—notably chrome, antimony, manganese, copper, emery and meerschaum, among the minerals; oil, among the fuels and lubricants; cotton and silk, among the textiles. With the aid of irrigation, furthermore, it was believed that Anatolia, Cilicia and Mesopotamia could be converted into important granaries. The great natural wealth of Asiatic Turkey was a lure to European traders and investors. The coincidence of the economic interests of the business men and the political interests of the statesmen caused the Near East to become one of the imperial "danger zones" of the world.

GERMANY'S INTEREST IN THE NEAR EAST

To the German Empire the problems of raw materials and foodstuffs were particularly pressing. To feed a rap-

idly increasing population the nation was becoming more and more dependent upon importations of foreign grain. Heroic measures taken to stimulate agricultural production—such as the imposition of high protective tariffs and the encouragement of scientific farming—could not obviate the necessity of feeding about one sixth of the population on foreign foodstuffs.

As the German worker was dependent upon imported grain, so the German manufacturer was dependent upon imported raw materials. Many indispensable commodities were not produced at all in Germany, and a large number of German industries were almost entirely dependent upon the outside world for their raw materials. Perhaps the best example of this condition was the textile manufactures, which had to obtain from abroad more than nine tenths of their raw cotton, jute, silk, and similar essential supplies. Interruption of the flow of these or other raw materials would have visited upon German industrial centers the same economic paralysis which af-

flicted the British cotton manufactures during the American Civil War.

German imports of foodstuffs and raw materials had to be paid for in goods and services. The increase of the population of Germany, the development of her industries, and the resultant growth of her import trade, were closely associated, therefore, with the expansion of German exports and the rapid increase in German shipping and foreign investments.

The building of a German colonial empire was an attempt to solve some of the Empire's economic problems in the traditional European manner. But Germany came late into the field of colonization and found that the most productive of the areas of the world had been previously appropriated by Great Britain, France and Russia. The German colonies in Asia and Africa were extensive in size, but singularly unpromising in other respects. With the exception of German East Africa, the colonies produced insignificant quantities of raw materials and foodstuffs; it has been estimated that the colonies produced less than one half of one per cent of the raw materials consumed by German industry before the Great War. Finally, German overseas possessions were open to attack, in the event of war, by the powerful British fleet. German colonial ventures were a distinct disappointment.

It was this situation which attracted Germans to the Near East. Turkey was wealthy in raw materials and held out possibilities for the production of foodstuffs. These much-sought-after commodities could be transported to Germany through the Balkans and Austria-Hungary over a railway which would be immune from naval attacks in time of war. Thus came into existence the idea of an economically self-sufficient Middle Europe under German hegemony.

THE BAGDAD RAILWAY

Around the Bagdad Railway centered all German interests in the Near East. When the first of the German railway concessions in Turkey were granted in 1888, there was every indication that it was being undertaken as a purely business enterprise. In fact, at the time, Bismarck wrote the *Deutsche Bank* that the risks involved in the enterprise "must be assumed exclusively by the entrepreneurs, and the latter must not count upon the protection of the German Empire against eventualities connected with precarious enterprises in foreign countries." It is sometimes asserted that imperialism exists only where active governmental support is given foreign enterprises; but in this case, as in many others, governmental interests developed *after* the enterprises had become established facts.

The economic security which Germany sought by the development of Asiatic Turkey was looked upon by other European powers as involving economic insecurity for them. Russia, for example, feared that the agricultural renaissance of Mesopotamia would lead to serious competition with the great Russian wheat fields; therefore Count Witte announced quite frankly that Russia would do everything possible to block the German advance in Turkey. Similarly, the French were concerned lest the Germans should interfere with the French supply of raw silk from Syria. The British believed that their Persian oil interests were menaced and were uneasy over the possibility that the cotton supply of Mesopotamia might be developed into a powerful competitor of that of Egypt and India. And associated with these economic considerations were grave strategic questions involving national defense and

imperial safety. Thus the Bagdad Railway became a serious bone of contention in the diplomacy of Europe.

There were two interesting attempts to settle the Bagdad Railway controversy: the first by internationalization; the second by division of Asiatic Turkey into spheres of interest. In 1903, German and English bankers arrived at an arrangement by which the Bagdad enterprise was to be jointly and equally controlled and owned by German, French and British capital. The arrangement received the approval of Mr. Balfour and Lord Lansdowne, Prime Minister and Secretary for Foreign Affairs of the United Kingdom, respectively, but met with such bitter opposition on the part of the London press that it had to be repudiated. In 1913-1914 a series of diplomatic negotiations, consummated on the very eve of the Great War, almost solved the difficulty by dividing up the empire of the Sultan into spheres of interest within each of which one of the great European powers was to have exclusive economic control.¹ Unfortunately, however, both internationalization and spheres of interest failed to adjust the conflicting economic and political interests of the powers in the Near East.

THE DEVELOPMENT OF AMERICAN INTERESTS

At the moment, the United States appears to have developed substantial economic interests in Anatolia and Mesopotamia. Of these interests the Chester concessions and the Anglo-American diplomatic controversy regarding the Mesopotamian oil fields

¹ For details of these negotiations cf., E. M. Earle, *Turkey, the Great Powers, and the Bagdad Railway*, Chapter X, and "The Secret Anglo-German Agreement of 1914 Regarding Asiatic Turkey," in the *Political Science Quarterly*, Volume XXXVIII (1923), pp. 24-44.

are but two tangible evidences. American business men are interested in Turkey as an important source of supply of raw materials, as a profitable market, and as a fertile field for the investment of American capital. A striking illustration of our increasing activity in the Near East is to be found in the trade statistics: in 1900, American exports to Turkey amounted to only \$50,000; in 1913, they had risen to \$3,500,000, and in 1920 to \$42,200,000. Imports into the United States from Turkey increased from \$22,100,000 in 1913, to \$39,600,000 in 1920. From 1919 to 1922 American trade with Constantinople alone has averaged over \$30,000,000 annually.

EFFECTS UPON AMERICAN FOREIGN POLICY

The question of the effects upon American foreign policy of these economic interests is yet to be answered. Will it lead the United States into the old game of imperial rivalries in the Near East? It must be admitted that the outlook is not promising for the anti-imperialist. As an illustration of the dangerous road we are treading, I should like to quote the following from a most significant book, *The United States Navy as an Industrial Asset*, published by the Navy Department in 1923:

Early in 1919 several American destroyers were ordered to Constantinople for duty in the Near East. Although these destroyers are good fighting ships, it costs some four million dollars a year to maintain them on this particular duty, which does not train the crews for use in battle. . . . The possible development of the economic resources of this part of the world was carefully investigated by representatives of American commercial interests. These representatives were given every assistance by the Navy, transportation furnished them to various places, and all

information of commercial activities obtained by naval officers in their frequent trips around the Black Sea given them. The competition for trade in this part of the world is very keen, the various European countries using every means at their disposal to obtain preferential rates. The Navy not only assists our commercial firms to obtain business, but when business opportunities present themselves, American firms are notified and given full information on the subject. One destroyer is kept continuously at Samsun, Turkey, to look after the American tobacco interests at that port. . . . The present opportunities for development of American commerce in the Near East are very great, and its permanent success will depend largely upon the continued influence of the Navy in that region.

Writes an instructor in the United States Naval Academy, in *Our World* for February, 1923:

With the assistance of a small force of destroyers based upon Constantinople,

our commercial representatives are establishing themselves firmly in a trade which means millions of dollars to the farmers of the American Middle West. By utilizing the wireless of destroyers in Turkish ports, at Durazzo, and elsewhere, commercial messages have been put through without delay. . . . Destroyers are entering Turkish ports with "drummers" as regular passengers, and their fantails piled high with American samples. An American destroyer has made a special trip at thirty knots to get American oil prospectors into a newly opened field. If this continues, we shall cease to take a purely academic interest in the naval problems of the Near East. These problems are concerned with the protection of commerce, the control of narrow places in the Mediterranean waterways, and the naval forces which the interested nations can bring to bear. They cannot be discussed without constant reference to political and commercial aims.

Here is dollar diplomacy with a vengeance!

The Chester Concession

By COLONEL LAWRENCE MARTIN

Geographer of the Harbord Mission

COLONEL MARTIN spoke briefly on the so-called Chester Concession.

Referring to three large maps of Turkey (a) as in 1914-15, (b) as proposed in the several secret treaties of 1915-16, and (c) as proposed in the Treaty of Sèvres and the Tripartite Agreement of 1920, he pointed out that the several "zones" and "areas of special interests" of the British, French, Italians and Russians promised a development of railway transportation and of mineral resources (oil as well as copper, silver, etc.) which would have been advantageous to the Anatolian Turks, but would probably have resulted in Turkey's eventually losing

most of Anatolia, and perhaps disappearing as an independent country.

Referring to a large map of Turkey, according to the Treaty of Lausanne, he pointed out that it showed not only the Chester Project of 1923, and the Bagdad Railway and its proposed branches, but also the nationality of control of all the railways in Asiatic Turkey. He said the Chester Project involves the building of railways in an area as large as from Philadelphia to Chicago and from Milwaukee to St. Louis.

He said he believed that any railway in eastern Anatolia will eventually pay interest on the investment, as the railway lines will run through territory

which is extremely rich in undeveloped mineral wealth (copper, manganese, chrome, mercury, emery, coal, iron, silver, lead, borax and salt, as well as petroleum). The region also has valuable agricultural and grazing resources, and will produce much more cotton, wool, goats' hair, silk, tobacco, and even more fruit and other food-stuffs than it does today; but these merely help in providing tonnage for the railways, and do not aid the concessionaires as the mineral wealth does.

He then stated that railways in Turkey (pointing out the nationality of control of the existing British, French and Belgian, Russian, Turkish and German lines) have been built in accordance with one or another of three general plans: (a) as a plain investment or as a military or religious development—cases to the point being the British Smyrna-Egerdir line, the Hedjaz Railway south of Damascus, and several of the Russian lines; (b) under a kilometric guarantee,—the Bagdad Railway and several of the French lines illustrating this type; and (c) under the scheme of return from the investment on the basis of mine production within 20 kilometers or about 12½ miles on each side of the railway right-of-way,—the proposed railways of the Chester Concession being instances, although not the first, for the Bagdad Railway also had mineral and forest rights in addition to the kilometric guarantee.

He expressed his personal conviction, based on trips over a number of the proposed railway routes, that the Chester Concession is an extremely valuable one, even although the capital which finances it will probably not have any opportunity to get petroleum in the oil fields of Mosul and southern Kurdistan (the territory shown on the map as under dispute).

Colonel Martin voiced a doubt as to whether it was certain that either the Turks or the concessionaires had secured exactly what they contemplated when the Great National Assembly at Angora granted to the Ottoman-American Development Company the so-called Chester Concession. The complications include (a) the French railway concessions of 1913 at Samsun and to the southeast and southwest, and the mining concessions promised to the French in 1921 in the Karshut valley and at Arghana Maden; (b) the German railway concessions of 1903, which Mr. Hugo Stinnes has recently alluded to, and which have been described in Prof. E. M. Earle's recent book on *Turkey, the Great Powers, and the Bagdad Railway*; (c) the rapidly-vanishing rights of the Armenians in the Turkish territory granted to Armenia by President Wilson's Armenian boundary decision; (d) the interests of Russia in eastern Turkey; and, as already mentioned, (e) the rights of the Kurds and the Arabs within the part of the concession that lies within the British mandate of Iraq, the disputed oil field of Mesopotamia.

It has even been intimated that the Chester Concession may turn out to be a Canadian, and perhaps a British, rather than an American railway project, as Mr. K. E. Clayton-Kennedy, who, with Mr. Arthur Chester, obtained the concession, is said to be a Canadian. It was reported in June, 1923, that Admiral Chester and his sons had sold their interests.

When the railways are built the Turk will get his mines developed; 99 years later he will acquire a valuable transportation system for peace and war; but it is to be hoped that the concessionaires are not interested in eventual sovereignty over additional portions of Asia Minor, as was the case when the secret treaties were negotiated

and the European "zones" and "areas of special interests" were laid out.

The mineral raw materials of Turkey, Iraq, Persia and Transcaucasia, had, he

believed, far too much to do with the determination of the commercial policies of Turkey and of certain of the great powers.

Financial Control of Raw Materials by Buyers¹

By EUGENE MEYER, JR.

Managing Director of the War Finance Corporation

RADICAL changes have taken place in recent years in the financial control of raw materials. Financial control is now exercised not only through direct ownership but also through marketing, shipping, insurance, and financial agencies.

Before the war, the European nations, representing the consumers, exercised, through their dominance in the field of shipping and international finance, a considerable degree of control over the export trade of the United States in raw materials and foodstuffs. But since the war there has been a fundamental change in the situation and the machinery upon which the control was based has broken down. Some of the reasons for this are obvious, but it should be emphasized that the failure of Great Britain to reestablish her pre-war dominance in the field of shipping and financing is due, to a considerable extent, to the failure of the British Government to reestablish its currency on a gold basis. The great advantage which Great Britain had for many decades was the absolute stability of her currency and political institutions. The dollar, in contrast to the pound sterling, was never really stable until the Federal Reserve System was created. The fluctuations in the value of the pound sterling since the war have prevented merchants from taking the risks involved in acting as

middlemen on a great scale. The burden of distribution, therefore, has been thrown back upon the producers and it has been necessary for the United States to finance the marketing of her own crops.

This is strikingly illustrated by the figures for the movement of export cotton. Before the war it was the custom of the European cotton merchant to purchase, during or shortly after the harvest, his requirements for the year; and approximately 80 per cent of our annual cotton exports went forward in the six months from September to February. But changed economic conditions, and especially the violent fluctuations in international exchanges, made it impossible for him to contract ahead for large supplies and he was compelled to buy on a hand-to-mouth basis, laying in sufficient stocks only to meet current needs. As a consequence, since the war only about 50 per cent of our cotton exports have been going forward in these same months. In other words, from 1,500,000 to 2,000,000 bales, which ordinarily would have been exported during the period from September to February, were left on the hands of Southern farmers and bankers and had to be carried over into the second six months period.

This situation, coming upon us suddenly, made a ruinous difference in trade, and the failure to understand it in 1920 and to provide means for stor-

¹ Synopsis prepared by the Secretary of the Conference and corrected by Mr. Meyer.

ing and financing the cotton in this country had a disastrous effect upon the growers and bankers. American agencies for the marketing of American products have been greatly improved during the past two years, and the

longer European countries delay in getting back to a gold basis the more effectively will the American producers be compelled to learn to finance and market their own products.

The Practical Need for International Conservation of Minerals

By C. E. JULIHN

Bureau of Mines, U. S. Department of the Interior

THE Department of the Interior through the Bureau of Mines is deeply interested in the conservation of mineral raw materials. For that reason I desire to call attention to a possibility of international conservation illustrated by a particular example.

The metal manganese, though not extensively used as a pure metal, is of enormous importance industrially by reason of its value as a steel alloy and as a reagent for use in the manufacture of steel. It is to be understood that these are distinct and separate uses.

As to the first use, the inclusion of considerable quantities of manganese in steel results in the production of what is known as manganese steel, which is characterized by great toughness. Manganese steel is indispensable in the manufacture of such things as the jaws of rock crushers, the facings of rolls for grinding, the teeth of steam shovels and other parts of machinery which must withstand shock and attrition.

Manganese, however, has another and even more important use as a reagent in steel manufacture. Here only small quantities of it are added to the molten steel just before it is cast into ingots and the action of the manganese as an oxidizer is of the greatest technical importance. A lack of sufficient manganese for this purpose

would greatly increase the cost and the difficulty of steel manufacture if present standards were to be maintained in the product.

This being so, it is apparent that the maintenance of supplies of manganese is a matter of great moment to all industrial countries and especially to those countries which possess large reserves of iron, or which are engaged in steel manufacture.

At present it is not difficult to obtain all necessary supplies of manganese in times of peace, but the known resources of manganese throughout the world are decidedly limited. The United States, though possessing considerable reserves of manganiferous iron ore in the Cuyuna Range of Minnesota, has only insignificant resources of the high-grade ore and is therefore dependent upon imports, chiefly from Brazil.

The known world reserves of high-grade manganese include only four great deposits: those of Brazil, of India, of the Caucasus and one other more recently discovered on the west coast of Africa. Others may yet be found, but the conservative management of world industry requires reasonable prudence in the use of what we have without too rash a dependence upon optimistic anticipations.

This applies especially to those metals which, like manganese, when

used as a reagent in steel manufacture, become non-recoverable. Gold, of course, is practically indestructible and the existing stocks of it may include some metal which was mined by the slaves of King Solomon. Iron, though subject to loss by rust, may be returned to the furnaces as scrap; but some other metals, such as manganese and tungsten, are generally non-recoverable when once used. The manganese used as a reagent in steel making, for example, remains in the steel as a manganese oxide, but it is ultimately lost in the slag if the steel is remelted. Hence, the need of international conservation with respect to a part of the Caucasus manganese ore.

The Kutais deposits in the Caucasus export about a million tons of manganese ore annually, about 20 per cent of it going to the United States, 40 per cent to Great Britain and the balance to France, Germany and Italy. This ore as mined averages 47 per cent manganese, which is a good usable grade. However, the buyers of ore naturally seek to obtain the highest possible grade of material and so it happens that the trade in the Kutais ore became established on a basis of 52 per cent manganese content. I presume that at the start there was some exceedingly rich ore available, as is usually the case with nearly all new deposits, but in the utilization of manganese ore there is no technical basis whatever for requiring it to contain 52 per cent. The 47 per cent average content of Kutais ore as mined should be entirely satisfactory. But the trade requirement as to this particular ore, having been once established, has persisted, and in order to meet it the producers resort to crude washing operations by which the grade of the product is raised to 52 per cent.

In the course of washing there

occurs, as a consequence, a loss of 40 per cent to 60 per cent of the original material, according to Mr. J. W. Furness, of Philadelphia, who made a study of the operations and to whom I am indebted for my information in regard to them. It appears, then, that an improvement of 5 per cent in grade is effected by losing into the streams almost half of the manganese mined, though it should be regarded as a most precious world asset.

As far as I am aware, there is no international agency concerned with the study and regulation of such matters. No nation or private interest as such is injured by the waste to which I refer. The loss will be borne ultimately by civilization as a whole and perhaps by the next generation rather than by ourselves, but it is hoped that merely calling attention to the facts as stated may lead to some means for remedying the abuse. If so, a precedent might be established for the correction of other practices of the same kind, such as the waste of tungsten, a metal of great importance for making high-speed tool steel and incandescent lamp filaments.

Perhaps, indeed, such an agency once established might find means for consideration of other questions of even greater international importance. The thrifty utilization and equitable distribution of the world's mineral resources is at least a legitimate concern of all its people. It is possible that the international struggles for the possession of raw materials may raise a question at some future time as to whether the possession of mineral resources by a nation shall necessarily create an absolute title to them, or whether those resources which constitute the foundations of industry should not be regarded as subject to some measure of international control.

Relation of Population Growth and Land Supply to the Future Foreign Trade Policy of the United States

By L. C. GRAY

Economist in Charge of Land Economics, U. S. Department of Agriculture

A LITTLE more than a decade ago James J. Hill startled the nation by pointing to the diminishing magnitude of our agricultural exports, particularly of grain, and suggested that at no far distant time the nation would be face to face with an agricultural deficit. The prediction seemed justified by the agricultural trend of that day, and yet at the present time it would appear that the tendency is entirely reversed, and the prediction one more shining example of the futility of economic prophecy. The volume of our exports in recent years has increased at an amazing rate, particularly of the cereals. During the past three years the markets of the world have been sagging under the pressure of the stream of grain, and the farmers of this and other countries have been afflicted with a serious depression which may result in portentous political consequences in this country at least.

In view of this sudden economic about-face, we may well ask: In what direction are we really headed? Is the present depression only a temporary interruption, a mere episode in the general trend toward greater economic scarcity caused by the increasing pressure of population on limited natural resources? Or is it the beginning of a significant economic epoch which requires a new outlook on our economic destiny?

EXPORT ACREAGE INCREASES

First let us consider the trend with reference to production for export. Up

to the five-year period 1899-1903, the acreage in continental United States devoted to export production was increasing. The next five-year period showed a decrease, which was continued during the five-year period 1909-1913. It was this decade of decreasing export acreage which led the "Empire Builder" and others to the conclusion that the nation which had been for half a century the world's granary was headed toward an agricultural deficit.

Then came the war with its double incentive of rising prices and patriotic appeal, followed for approximately two years after the Armistice by the continuance of the price levels of the war period. As a result of these stimuli the average crop acreage devoted to export production from 1919-1921 was 46 per cent larger than for the period 1909-1913. This increase was entirely accounted for by expansion in acreage of the cereals employed for export production, which increased about 200 per cent from the period 1909-1913 to 1919-1921. The total increase in area of twelve principal crops devoted to export production during this period amounted to a little over 14 million acres, but the increase in the acreage of the cereals employed for export was over 18 million acres, of which the bread grains, wheat and rye account for about 16 million acres. The larger increase in cereal acreage than in total acres employed for export is accounted for mainly by the decrease in export acreage of cotton.

PER CAPITA ACREAGE IN CROPS DECREASES

Now, let us turn to another side of the picture. What has been the tendency in regard to total crop acreage per capita? Is the large increase in acreage devoted to production for export due to a large increase in total crop acreage per capita? The fact is that the total crop acreage per capita was less in 1909 than in 1899, and still less in 1919 than in 1909. Moreover, the acreage of nineteen principal crops was nearly 2 per cent less in 1922 than in 1919 although population continued to increase.¹

LIVESTOCK PRODUCTION DECREASES

How may we account for the apparent paradox, a large increase in both total and per capita acreage of crops produced for export while our per capita acreage in crops has been decreasing?

The first explanation that would occur to one is a possible increase in average yield per acre. A careful study shows that the index of average yield per acre of nine principal crops for the period 1918-1922 was about 16 per cent higher than for the period 1883-1887, but in the period 1903-1907 it was 19 per cent higher than in the earlier period, so that in the past two decades there has been no increase in average yield per acre, but rather, a slight decrease.²

Since there has been a large expansion in acreage employed for export

production, but a decrease in total acreage per capita, and no increase in yield per acre, the only possible conclusion is that there must have been a diminution in acreage required to provide for domestic consumption. This change is accounted for statistically by the rapid decrease in the relative significance of livestock and livestock products in American consumption. A careful estimate indicates that the average per capita acreage for 1919-1922 employed in the feeding of livestock was only 91.6 per cent of the average for the period 1909-1913. If the per capita acreage employed for this purpose had been as large in the later as in the earlier period we should require an addition of approximately twenty-one million acres. The total increase in the acres of all crops devoted to export was a little more than 14 million. Consequently the reduction in acreage required for livestock on the per capita basis of 1909-1913 would account for more than the increase in export acreage, but approximately equals the increase in the export acreage of cereals.

It appears, then, that the expansion of exports in spite of the general decrease in per capita acreage in crops is largely attributable to reduction in the acreage requirements for livestock, particularly of beef cattle and horses. The first mentioned change is mainly due to a reduction in per capita consumption of beef, estimated to have decreased nearly 28 per cent between 1907 and 1921.³ The decrease of 22 per cent in the number of horses per capita from 1890 to 1920 was largely owing to the employment of gasoline and electric power in substitution for horse power.

³ *Meat Production, Consumption, and Foreign Trade in the United States, 1907-1921*, by John Roberts, mimeographed circular, Bureau of Animal Industry, U. S. Department of Agriculture.

¹ Even the increase in acreage of the cereals from 1909-1913 to 1919-1922 was only 12 per cent, while during this period population increased about 14 per cent.

² Apparently the increase in productiveness made possible by scientific progress and the diffusion of technical information has been fully offset by the necessity of expanding our acreage through the addition of lands of inferior fertility, by the declining fertility of old lands, and by the increasing ravages of plant diseases and insect pests, such as the boll weevil.

EXPORTS AND PRICE DEPRESSION

Let us now consider the connection between this change in our export trade in farm products and the nearly three-year-old price depression by which our farming industry is afflicted. It is well to trace the development of popular opinion on this subject. Just after the depression appeared in the fall of 1920 popular attention was directed to the great decrease in the volume of exports to Europe measured in dollars. Immediately friends of the farmers began to explain the decrease in the prices of farm products as due to a sudden decline in Europe's power to import American products. The great variations in exchange rates and the chaotic credit conditions appeared to afford easy explanations. The result was a great clamor for a means of promoting our export trade in farm products. All sorts of "remedies" were suggested, and it was this stage in our national thinking which produced the revival of the War Finance Corporation and which directed favorable attention to the *Ter Meulen* plan and other schemes for promoting international trade.

However, economists and others who carefully analyzed the situation came to realize that the general public had jumped at an explanation which was at best only a half-truth. The decrease in volume of exports as measured by value was an effect rather than a cause of lower prices. It soon became apparent that the exports of farm products in terms of physical quantities had not shown a notable decrease. In fact, the exports of the five cereals were considerably larger in 1921 than they were in the period of the war when prices were very high.

Gradually, in recognition of this fact the popular attitude has changed, and now the outcry is not so much for

promoting foreign trade, but rather attention is centered on our unwieldy export surplus, and this surplus is credited with being responsible for the depression in the farming industry.

Again, however, public attention has been focussed on a half-truth. The export surplus of the United States alone does not determine the world supply and consequently the price level of cereals. The fact is that our exports of wheat increased from an average of 103 million bushels per year for 1909-1913 to an average of 225 million bushels during the war years 1914-1918, and this enormous expansion was accompanied by an increase in average prices from 90.1 cents to \$1.45.⁴ Furthermore, the large exports of 1919 and 1920 amounting to 214 million bushels and 309 million bushels respectively were disposed of at prices averaging \$2.13 for the former year and \$2.17 for the latter year. Compared with the general price level these prices were not high, but they were much more than double the present price, although the exports of wheat for 1921 and 1922 were 11 per cent less than in the two years 1919-1920. It is clear, then, that the sudden decrease in the price of wheat was not caused in the first instance by a sudden expansion of our wheat exports. Furthermore, wheat has a world market. Our production and exports make up only a part of the world's balance sheet.

THE WORLD SUPPLY OF CEREALS NOT INCREASED

It is necessary, then, to consider the world supply. It is well known that the war eliminated Russia and to a large extent the Balkans as large exporters of the bread grains. The large increase in the exports of Canada and

⁴ Averages for first of each month, *Yearbook*, 1922, p. 596.

the United States have been required to supply this gap. Has the result been an increase or decrease in the supply of the bread grains available for the consumption of the world outside of Russia? According to the International Institute of Agriculture, at Rome, the average area of the five cereals from 1919 to 1921 inclusive outside of Russia was about 4 per cent higher than the average area exclusive of Russia in 1909-1913, but practically no higher than during the war years 1914-1918, when good prices generally prevailed. The average production of cereals in quintals from 1919 to 1921 was slightly less than from 1909 to 1913, although slightly more than for the years 1914 to 1918 inclusive, but the rate of increase was not greater than the probable rate of increase in world population outside of Russia. The average area of wheat was about 9 per cent greater for 1919 to 1921 than for the period 1909 to 1913, but the production was slightly less. The situation is even more striking when we make comparison of the supply of bread grains available for the consumption of the world outside of Russia from 1919-1921 and the supply available from 1909-1913 when Russian exports were also included. The world supply in the last mentioned period was 10.2 per cent less than it was in the first mentioned period.

Thus it appears that the great expansion in American exports of cereals helped to offset the loss due to the elimination of Russia and the decreased production of other European countries, but only partially; and the average supply of the bread grains outside of Russia for the years 1919 to 1921 was considerably less than it was in the years 1909-1913. It is clear, then, that there has been no increase in world supply, whether total or per capita, sufficient to account for the great de-

crease in prices of cereals. Consequently, we must attribute a large part of the responsibility for the great change in price level of the cereals to fundamental changes in demand, and we will naturally look for this change in the chaos of war-torn Europe.

DEMAND FOR CEREALS DECREASED

If we consider the four great consuming countries, the United Kingdom, Germany, France and Italy, it appears that the consumption of cereals from both domestic production and net imports was only 72.6 per cent in 1919-1921 of the pre-war average, 1909-1913. The supply of the two bread grains, wheat and rye, was 80.8 per cent of the pre-war average. It is true, the net imports of the last mentioned products were greater than in the pre-war period by 15 per cent, but not enough greater to make up for the decline in domestic production. The four countries considered as a whole were unquestionably consuming less of the bread grains than in the pre-war period. This is especially true of Germany, where the supply of bread grains was only 56.9 per cent of the pre-war average while the population decreased but 8.8 per cent.

It is an elementary principle of economics that demand is to be measured not only by the quantity taken but also by the price at which it is taken. If a nation purchases the same amount of a given commodity as formerly, but at only half the price, it is evident that its demand has declined. The people of the four European nations mentioned above taken as a whole are not only using less of the bread grains than in the pre-war period, but buying at a much lower price even if we take into consideration the decrease in the purchasing power of gold that has occurred during the period since the outbreak of the World War.

WHY THE DEMAND DECREASED

Since the reduction in demand has been so largely responsible for the decline in the value of cereals, what are the factors responsible for this decrease in demand? In the first place, Europe's problem has been not merely to maintain her former imports, but also to make up by additional imports for the marked decrease in her own production. The average annual deficit in the production of Europe, not including Russia, for all five cereals during the period 1919-1921 was 250 million quintals as compared with the period 1900-1913—that is, the product was 23.2 per cent less in the later period than in the earlier period.⁵ If European consumers had maintained their pre-war level of consumption it would have been necessary to increase their imports above those of the pre-war period by the huge amount mentioned. Instead of increasing their imports by 250 million quintals they actually succeeded in increasing them by only 94.8 million quintals, leaving a deficit of 154.7 million quintals.⁶

It is highly probable that the reduced consumption reflects a reduced ability to purchase as large a supply of cereals as formerly at a normal level of value. It is not probable that the enormous decline in Europe's cereal production has been adequately compensated by increased productivity in other direc-

tions. The United Kingdom has had approximately two million men out of work for several years. In the other countries strikes have been frequent, and the great fluctuation in prices, especially in Germany, must have seriously reduced the efficiency of productive effort even though that effort has been stimulated to a frenzy of activity through the influence of currency inflation. No doubt, in parts of Central Europe malnutrition has also played a sinister part in reducing the level of productiveness.

To an audience composed of students of foreign trade and international relations I need do no more than summarize the obstacles that prevented the great enlargement of European imports of farm products. The fluctuation of foreign exchange rates has been a great obstacle in itself. The rapid depreciation of the currency in Germany has created an artificial difference between foreign trade values and domestic values due to the fact that domestic prices are adjusted more slowly to changes in the volume of the currency than are the exchange rates. When I was in Germany last summer, a competent economist told me that the domestic value level was about two-thirds the foreign value level. The result has been to put a premium on exports rather than on imports.

Even if the national income of Western Europe had not been reduced, the demand for cereals would probably be greatly diminished through the great redistribution of income which in the countries of extreme inflation has resulted in impoverishing the middle classes and enriching the few without correspondingly benefiting the laboring classes.

Such are the conditions that reduced the ability of Europe to increase her imports sufficiently to make up by in-

⁵ A part of this apparent deficiency was due to the fact that because of price control peasant farmers in some of the Balkan states failed to report correctly their production. On this account, the deficiency appears larger than it really was.

⁶ It is not necessarily true that this deficit is a measure of the deprivation suffered by consumers in the respective countries. The war has resulted in closer milling of grain, and consumers have become accustomed to certain substitutions such as potato flour. It is probable that in some degree these changed habits of consumption will permanently modify the per capita requirements of European consumers for the cereals.

creased importation the enormous deficit in consumption that has been mentioned. As a result, notwithstanding the small increase in imports of the bread grains, amounting to only 15 per cent of the pre-war imports in the case of the four countries mentioned above, the imports were purchased at values considerably below those prevailing from 1909-1913.

Conditions have grown steadily worse. It is well known that for the first two years after the Armistice European imports and to a large extent the maintenance of the high price level of the war period were made possible by an enormous expansion of credit. During the first half of 1919 our great export balance with Europe was largely financed by credits granted by the United States Government to the Allies. During the last half of 1919 and the entire year 1920 European purchases in this country were made largely on open account—that is, by unfunded debt to private creditors, estimated by Doctor Benjamin Anderson as amounting to at least 4 billion dollars about the beginning of the year 1921.⁷ In short, the credit position of Western Europe has grown steadily worse since the Armistice. The United Kingdom has entered upon the heavy task of paying interest and amortizing the principal of its large debt to this country, a process likely to increase exports to this country rather than imports from this country, and through the heavy burden of taxation to reduce by so much the income available for consumption by the people of the United Kingdom. A high American tariff is hampering the flow of goods to America in payment of debts and in exchange for American exports. The controversies over reparations and the uncertainties with respect to public

indebtedness, intensified national uneasiness and increased military expenditures have unquestionably weakened the economic ability of Europe to import American products.

EUROPEAN AGRICULTURE RECOVERING

Finally, I come to the point that appears to darken still more the outlook for restoring cereal prices to a normal level. Whereas politically and financially a large part of Europe is going from bad to worse, European agriculture is slowly recovering. I will not take the time to quote confirmatory statistics, but it is apparent that the great deficit mentioned above is gradually being reduced not through further increase in imports, but by an increase in production which threatens to reduce physical imports at the same time that the continued deterioration in credit and financial position reduces still further the ability to purchase foreign cereals. Recent reports indicate that France will this year produce nearly enough wheat to provide for her own consumption. Furthermore, there appears to be a prospect that Russia may begin shortly to contribute again to the larder of Western Europe. Krassin has announced a cereal export of several million tons for the current year. Official information would tend to discount this considerably, but at any rate it may be at least a portent for the next few years.

EFFECT ON AMERICAN FARMERS

What does this mean for the American cereal producer? It can only mean several years of radical readjustment in our agriculture. Such readjustment is necessarily somewhat slow because of the fact that the expansion of our cereal acreage has largely been through the development of new farming areas under the one-crop system in the semi-arid West. The area ex-

⁷ "The Return to Normal," *The Chase Economic Bulletin*, Feb. 28, 1921.

panded readily under the stimulus of high prices, but the contraction is slow and painful. There is practically no alternative form of agriculture to which these new crop areas can readily be diverted without a complete reorganization of the farming system. After homes are established, buildings erected, fields broken, stock and implements purchased, and heavy debts incurred, it is difficult all at once to make a drastic reduction in the crop acreage. Montana may be taken as an illustration. The wheat acreage of that state increased from 870,000 acres in 1918 to 2,787,000 acres in 1920, but in spite of low prices the acreage had decreased by 1922 only 88,000 acres.

Information from the other great nations which expanded their productions and exports under the stimulus of war conditions seems to point to the fact that contraction of their cereal acreage is a very slow process. In spite of two years of lower prices the area of wheat in Canada was larger in 1922 than it was in 1920. In Canada, even more than in the United States, the war-time increase was effected by the expansion of the farming area, and contraction is likely to be very slow, if it occurs at all.

Some relief will gradually be afforded through increase in our population. On account of uncertainties in our immigration policy the probable rate of increase is more than usually problematical. However, even our natural rate of increase would lead us to expect roughly a million a year. During the next five years our population is likely to increase at the rate of from one million to one and a half million a year. At the present rate of production and consumption in this country it would require an increase of 17.4 per cent in population to reduce our wheat exports to the level which prevailed from 1909-1913. Roughly this would require

from fourteen to nineteen years, according to the rate of growth of our population. This is a long time for a revival of prosperity in wheat-producing regions.

By devoting some of our wheat lands to other kinds of cereal, the period of surplus production would be greatly shortened. The percentage of exports to total production is much smaller than in the case of wheat alone, and consequently a much smaller increase of population, only 6.1 per cent, is required to absorb the surplus. This would indicate a period of four and a half to six and a half years. A reduction in total cereal acreage is also advisable. This can, and probably will be, effected on those farms recently devoted to wheat as the principal crop. The continuation of the present accelerated migration of farm laborers and farmers to other industries will also gradually play a part in the readjustment of supply. The reduction in our own per capita consumption together with the changes in European consumption and the reduced ability of Europe to purchase American exports at remunerative values probably imply that temporarily our crop acreage is excessive.

It is important, however, to recognize that the reduction in the American export surplus of cereals to the pre-war basis would not alone ensure a satisfactory price level for wheat, for the reduction in world supply due to the decrease in American exports may be more than offset by the increase in European production, including possibly the restoration of Russian exports. Furthermore, if political and financial conditions continue on their present ruinous course, the continued weakening of European demand would tend to offset the effect on prices of the reduction in American exports.

INCREASE IN WORLD POPULATION

One hopeful possibility is the increase of world population. A recent careful estimate by Professor G. H. Knibbs, of Australia, in his monumental work, *The Mathematical Theory of Population*, indicates that the present rate of annual increase of population for the world as a whole is approximately 11.59 per thousand. This rate is substantially confirmed by another recent study.⁸

Accepting the estimate of world population by Professor E. M. East, of Harvard, as 1,700,000,000,⁹ it would appear that the increase averages about twenty million a year. Not all of this increase represents potential demanders of grain, but it is clear that it means a very rapid increase in the number of consumers. How long before this influence will affect the world level of prices it is difficult to estimate.

I have been forced to employ two-thirds of my allotted time in explaining a temporary variation in the long-time trend which James J. Hill called attention to a decade ago—a variation due, as we have noted, to two unexpected developments—first, the reduction in per capita acreage devoted to consumption at home owing largely to the decrease in the number of beef cattle and work stock per capita, and second, changes in European consumption and a decline in European buying power.

POPULATION INCREASING

However, I should like to emphasize again the point made in an earlier part of this paper that the present condition is a temporary digression from the long-time trend toward increasing scarcity of

land in relation to population which began about two decades ago. For the little time which remains I want to pick up the threads of this trend and trace them to certain conclusions.

Let us first consider briefly the matter of population growth. Professor Pearl's equation indicates a population of about 148 million by 1950.¹⁰ This may be modified somewhat by continuance of restrictive immigration policies, but it appears probable that a population of 150 million will be reached shortly after the middle of this century or about three decades from the present.

What is the relation of this population growth to land supply? It was pointed out in an earlier part of this paper that the area of crop land per capita has been decreasing for the past two decades. For the most part, this decrease is not due to lack of surface available for use for crops, for we have been throwing land out of use by the rapid cutting of our forests much faster than we have been able to employ it for crops. To have maintained the per capita area of crops prevailing two decades ago would probably have necessitated some further encroachment on the area of pasture, but the competition of our lower grade pastures would not have been strong enough to cause a serious restriction on the expansion of area in crops. The main reason for the reduction in per capita crop area is that, although we have yet possibly 600 million acres of land still physically capable of being employed for further expansion, these lands either are of inferior quality or require heavy expenditure for draining, clearing or irrigation. Already we have econo-

⁸ *The Natural Increase of Contemporary Peoples*, by W. Russell Tylor. An unpublished doctoral dissertation prepared at the University of Wisconsin.

⁹ "Population," *The Scientific Monthly*, June, 1920.

¹⁰ Pearl, Raymond and Reed, L. J., *The Rate of Growth of Population in the United States Since 1790, and Its Mathematical Representation*. Proceedings of the National Academy of Science, 1920, pp. 275-288.

mized in area employed (largely by modification of consumption) rather than to expand our area into these less desirable lands.

For several decades it is probable that we have experienced not only a per capita decrease, but even an absolute decrease in the area of pasture land. The area of pasture land cannot be increased except by employing some of our forest area for the purpose, and it will be shown in a moment that this is impracticable. Furthermore, such increase in crop land as may be required will necessarily be largely at the expense of land now used for grazing. Therefore, with the increase of population the per capita area of pasture land is likely to decrease rapidly.

FORESTS WILL REQUIRE MORE LAND

A most serious phase of the problem of land supply is encountered in connection with forest requirements. It is generally known that we are cutting our forests from the stored crop of past generations. If we should continue the present rate of cutting, even with no allowance for the requirements of increased population, our supply of saw timber would be exhausted in less than 50 years. Moreover, much of the remaining stand of timber is in comparatively inaccessible districts in the Rocky Mountain and Pacific Coast sections.¹¹

Since 50 years or more is required to grow a crop of saw timber, it is obvious that we should begin at once to enlarge the area of growing forest, for the present annual growth was allowed for in the above estimate of period of exhaustion.

¹¹ The writer does not predict that the supply will actually be exhausted in the above mentioned periods, but if it is not exhausted it will be due to the fact that we shall curtail our consumption, probably as a result of the increasing pressure of higher prices of timber.

Now, it is clear that a very large area would be required to provide for the timber needs of our increasing population at the present rate of consumption. In fact, to provide for a population of 150 million at the present rate of consumption per capita and at the present rate of growth in our growing forest would require no less than 1465 million acres, or more than three-fourths the total area of the continental United States, and 35 per cent more than our total area of humid land capable of being used for crops, pasture or forests.

Clearly such an outlook is impossible. Drastic readjustments will need to be made in rate of growth, in rate of consumption, or both. Even if the rate of growth were increased to that prevailing in the intensively operated forests of Western Europe we should still require far more forest land than we can spare from our land area for the purpose. Consequently a very marked decrease in per capita consumption will be necessary, depending, of course, on how much we succeed in increasing the rate of growth and how much land we put to work growing trees. Even if the entire present forest area of 483 million acres, of which only 402 million is in timber, were employed in growing timber by the intensive methods of growth now employed, say, in German forests, it would still be necessary to curtail our present per capita consumption more than 40 per cent to meet the needs of 150 million people. Even this assumes an increase in the rate of growth from 24 cubic feet per acre as at present to 50 cubic feet. A great many people have the idea that eliminating the losses from fire would alone solve the forestry problem. I do not wish to minimize the importance of such a measure, but it has been estimated that elimination of fire would increase our rate of growth only from

300 barrels!

about 24 cubic feet per acre as at present to a little over 29 cubic feet.

The prospective scarcity of forest land suggested by the above statements, and now temporarily obscured by the fact that we are still cutting from a stored crop, indicates that in a comparatively short time we shall experience very acute competition between crops, grazing and forests for the use of at least part of the available forest area. Even though crops should win the day in the case of the more fertile areas, the competition of the other uses, as well as the costs of clearing, and in some cases draining the land, will tend to emphasize the scarcity of the land for use for crops and pasture.

OUR FUTURE FOREIGN TRADE POLICY

Relief from this pressure can be found in four directions: (1) modifications in consumption, (2) increase in productivity of crop and pasture land, (3) probably ultimately a marked decrease in the rate of increase of population, and (4) changes in foreign trade by way of reducing exports or increasing imports.

The scope of this paper does not admit of my undertaking to estimate the probable economies that will be effected by increasing the productivity of our land and by modifying our consumption. It is sufficient to note that the pressure for land is likely to become sufficiently great to compel us to modify considerably our foreign trade in farm products.

From 1914-1921 the nation employed an average of approximately 62 million acres of crop land in producing for export. (This includes the estimated acreage employed in providing crops for export in the form of livestock and livestock products and also the crop average used in maintaining the workstock employed in producing for export.) If all of this 62 million

acres were employed in producing for domestic consumption instead of for export it would provide for an increase of a little more than 22 million people, the increase of a little more than a decade. However, even when the pressure of our land resources becomes far more intense than at present it is scarcely probable that we shall entirely cease to employ some land in providing for export. Probably we may continue to export some cotton, tobacco, and perhaps other products.

On the other hand, unless a restrictive policy is adopted it is almost certain that we shall see a large increase in imports of farm products. We have at present a large volume of imports such as coffee, cocoa and sisal which we are physically unable to produce. These products will be imported in increasing quantities to supply our growing population. Our most important imports now consist of products of which we produce a part of our supply—such as sugar and wool. The domestic production of both of these products is now maintained largely by the supporting influence of a protective tariff. If the needs of our increasing population are to be met in spite of the increasing scarcity of our land supply, without increasing the imports of these commodities, it is highly probable that increased protection will have to be afforded.

Most significant of all is the probability of having to resort to the importation of grains unless some special stimulus is given to American agriculture. Considering the quality and location of our undeveloped acreage, and making due allowance for the probable changes in consumption and in methods of production, I am forced to the conclusion that we shall not be able to expand our grain production sufficiently to maintain our population a few decades from now in face of the

Are always equal!!

competition of the vast Canadian surplus of cereals, unless protection shall be afforded to our producers.

Such protection now exists nominally, but it appears to be of little more than local significance. In a comparatively short period of time I believe we shall be forced to make the same fateful choice that confronted England in the middle of last century, and which resulted in the repeal of the Corn Laws. Shall we have free trade in farm products with the resulting advantage of cheap food as a basis for further industrialization of our national life, but at

the expense of subordinating still further our agriculture to our industry? Or, on the other hand, shall we give sufficient protection to agriculture to insure at least the maintenance of its present relative position in our economic polity? What answer will be given to these questions I shall not endeavor to predict. Nor do I pretend to be wise enough to foresee what answer will best subserve our national welfare. But no one here will disagree with me in the assertion that the answer will be fateful for the future welfare and stability of the Republic.

European Agricultural Policies

By FRANK M. SURFACE

U. S. Department of Commerce

THOSE of us who live in countries which produce an agricultural surplus, where the rights of acquiring and holding property are adequately guaranteed and where the pangs of "land hunger" have not been felt, have oftentimes but little appreciation of the strikingly different conditions which prevail in countries where economic conditions for the masses are more severe.

LAND POLICIES IN ENGLAND

In England the development of manufacturing industries towards the end of the 18th century and afterwards had a marked effect upon agriculture. With an increasing class of non-agricultural wage earners, prices began to rise and both landlords and tenants began to see a way of becoming wealthy by getting control of more land. The movement for enclosing more of the common lands into estates and holdings gained new impetus. By taking this common land, both arable and grazing, into the large estates, thousands of

poorer families were deprived of their livelihood and were forced to find new homes either in the budding industrial centers or as farm laborers on large estates. The seventy years prior to 1850 was a period of great industrial unrest with new adjustments between classes. During this period, also, England was at war with France more or less constantly for over twenty years. During this war period prices of farm products rose to extraordinarily high levels. The average price of wheat for this period was eighty shillings per quarter, or about \$2.40 a bushel.

After the end of the war in 1815 landlords and farmers who had adjusted their operations to the high prices were not willing to allow these to fall to lower levels. Since they were in control of Parliament, they passed the famous Corn Law, which, among other things, prohibited foreign grain from being brought into British markets when the price for native grain was less than eighty shillings a quarter. The object was to maintain the price

of wheat at this figure, but like many other attempts to overthrow economic laws by legislative action, the attempt failed miserably. In less than a year the price had fallen as low as fifty-three shillings. In the twenty years that followed no less than five separate committees from the House of Commons collected evidence and attempted to devise remedies, but without avail. This was a period of intense distress among the British farmers and readjustments were made slowly. The Corn Law was the cause of bitter strife and political rivalry between the agricultural and industrial classes. It was not finally repealed until 1846, or thirty years after its passage, and then only after a bitter struggle. An intense and conscientious study of this period of English history would undoubtedly be enlightening to those who are now actively advocating government price fixing. In many respects conditions were parallel to those which exist today.

Under the necessity for greater home production of food during the World War, England again adopted a minimum price for wheat and oats. This was in 1917 and was to last for five years. In December, 1920, another act was passed fixing prices of wheat and oats as well as farm wages. The Government agreed to pay the difference between the price received by farmers and the price fixed. Although this act stated that four years' notice of repeal was to be given, it remained on the statute books just seven months, being repealed in June, 1921. The Government compromised with the farmers by paying a straight bounty for every acre of wheat and oats grown in 1921.

The present system of land tenure in England, while hardly to be regarded as ideal, has worked rather satisfactorily for English conditions. It is the

result of a long series of interactions between the landowners and tenants. It has resulted in guarantees to the tenant that he shall have the benefit of improvement made during his tenancy and has obviated many of the difficulties of tenant farming in other countries.

Through a long series of reactions England before the war had settled to a policy of importing her chief cereal supply from areas of cheaper production in the western hemisphere and Australia. Her agriculture tended largely to animal husbandry including dairying and sheep raising. Owing to the pressure of the war, large areas of permanent grass lands were ploughed and planted to cereals. There is every indication that England is going back to her former policy and cereal production in the future is likely to occupy no more important place than it did before the war.

LAND OWNERSHIP IN FRANCE

Reference has already been made to the revolution in France by which the peasants came into ownership and control of their land. During the last century there has been a marked tendency towards an excessive subdivision of French land. One of the marked characteristics of the thrifty French peasant has been his desire to own a bit of land, however small. The extent to which this subdivision had proceeded is shown by the fact that out of a total of 5,300,000 land holdings before the war, 4,500,000 or 85 per cent were less than twenty-five acres in area and more than 2,000,000 of these were less than one hectare or two and one-half acres in extent. In the north of France, the region which later became the "devastated territory," approximately 50 per cent of the holdings were less than two and one-half acres, and many were extremely small. As a

rule a single hectare was divided into three or four plots. Usually several of these plots belonged to the same peasant, he having from time to time invested his savings in scattered plots of land.

In the devastated regions the terrible destruction obliterated many of the original boundaries of the small plots. In the work of restoration it has been found less expensive and more satisfactory to consolidate many of these holdings, thus giving a peasant all of his land in a single tract. A law passed early in 1919 provided for this under certain restrictions and up to April of last year, in thirty communes the total number of holdings had been reduced from 45,560 to 9,463 and the average area per plot increased from nine-tenths of an acre to four and four-tenths acres. This movement will undoubtedly increase the efficiency of French agriculture in these regions.

The French Government has done much in recent years to encourage individual peasant ownership of land. Among the more important of these are the measures providing agricultural credits which have been greatly amplified since the war.

LAND POLICIES IN SOUTHWEST EUROPE

Turning to the countries of Eastern and Southeastern Europe—agriculture is in a much more primitive state of development than it is in the countries farther west.

The history of all major wars shows that the returning soldiers, who are very largely drawn from the peasant classes, demand reforms and in particular they demand to share in land holdings. A returning army is in a particularly advantageous position to force its demand upon a government. So following the World War far-reaching agrarian reforms have been insti-

tuted in all of the countries of Central and Eastern Europe with the possible exception of Russia, where perhaps the end of the upheaval has not yet been seen.

All reforms in these countries have aimed at a more democratic land ownership by strengthening peasant proprietorship and by dividing up the large estates. In the different countries the methods have not been the same. In carrying out any agrarian reform the first requisite is for the state to secure a reserve of land. This can be accomplished in some countries by utilizing land already in the possession of the state and additional lands can be bought from voluntary sellers. This is the method which has been pursued in eastern Germany, Austria and Hungary. In these countries no class of land ownership has been attacked and no lands expropriated. Expropriation, however, has been provided for in some instances and under certain restrictions if it should prove necessary in carrying out the reforms. In this group of countries the right to large estates is still recognized.

In a second group of countries, including Czechoslovakia, Poland, Roumania and Lithuania, an entirely different method has been adopted. Large scale ownership in these countries has been condemned and provision made for the expropriation of all lands above a certain area. The amount of land which may be retained by the former owners differs in different countries and also according to whether it is arable, forest or mountainous land. In general, the amount which may be retained runs from one hundred to five hundred acres.

Roumanian Land Policies

In Roumania the peasants were held in absolute serfdom under the feudalistic system prevailing until 1864.

When they were freed they did not receive sufficient land either to support their families or to make payments on their holdings. Hence they had again to turn to the landlords either for work on shares or for wages or else to rent land from them. At almost every turn the landlord was able to take advantage of the peasant. The results led to very complicated and unsatisfactory conditions, often leaving the peasants little better than slaves. The peasant revolt in 1906 instituted some reforms with regard to credit and common lands, but left the peasant still at the mercy of the landlord. The situation is clearly revealed in the fact that more than half of the arable land was held by less than one per cent of the population.

It was not until December, 1918, after the close of the World War, that a genuine reform was put into effect. By the decree of Ferdinand I approximately 5,500,000 acres of land were expropriated from large estates, institutions and state domains and made available to the peasants. The peasants are given twenty years to pay for the land and have to pay only the capital sum. The Government has given the former owners bonds payable in full at the end of twenty years. The change in ownership is shown by the fact that in 1864 only 20 per cent of the nearly 20,000,000 acres of farm land was in small holdings. At the end of the war in 1918 about 52 per cent of the total acreage was in small holdings, while when the present reforms shall have been carried out nearly 90 per cent of the land will be held by the peasants.

The actual distribution of the land has proceeded rather slowly and is by no means complete. During the process of transfer a considerable portion of the land is not being cultivated either by the estate owners or by the

prospective peasant owner. When the transfer has been completed it will no doubt have considerable effect upon the agriculture of the country. It is believed that more corn and less wheat will be grown because the peasant has always been forced to plant wheat against his will by the landlords who desired an export product. Animal husbandry will receive more attention than in the past. The Roumanian peasant lives largely on corn and dairy products. It is also probable that under more prosperous economic conditions he will eat more wheat. In any event, it is probable that even after conditions become thoroughly settled, Roumania will produce less wheat for export than formerly. If the economic condition of the peasant improves sufficiently, he will become a better farmer and with more modern methods he can undoubtedly increase the yield from his land. This, however, will require education and time.

The Roumanian peasant has just gained what the peasants of Western Europe secured more than a century ago. Probably in no other countries have the nobility and upper classes struggled harder to hold their advantages over the peasant than in these countries of Southeastern Europe. The trend of human progress has at last proved inexorable and they have succumbed. Perhaps from a purely economic point of view the old system was temporarily more efficient, but it transgressed principles of social welfare which were inevitably bound to win out just as they have done in the countries of the West.

Czechoslovakia

In Czechoslovakia, while the amount of land expropriated is rather large (nearly 28 per cent of the total area), the proportion of arable land which is changing hands is considerably smaller.

Furthermore, before the war the land in the western portion of the present republic was handled in a much more scientific manner than the lands in Roumania or other more eastern states. Consequently, the change in ownership is likely to have a much less profound effect upon its agriculture.

Land Reform in Bulgaria

As in most other countries of Eastern Europe, a land reform is taking place in Bulgaria. However, before the war the proportion of land held in large estates was much smaller than in Roumania for example. The pre-war peasant holdings were also larger than in the other Balkan countries. Furthermore, the large estates differed in character from those in other parts of the Danube basin in that they consisted of scattered farm tracts instead of large centralized units as in Russia and Roumania where one estate might consist of as much as 125,000 acres in a single tract. The Bulgarian large estates were usually operated by peasants on shares so the land reform will consist only in a change of ownership and it is not likely that this will materially affect agricultural production.

Russian Land Policies

Reference has already been made to the condition in Russia. It is of interest to note the situation there in a little more detail. When Alexander II liberated the peasants from serfdom in 1861 a system of communal property was established. The peasants were not given the land but it was parceled out to them according to the size of their families. Since both the total communal population as well as the size of families varied with time, it was necessary to redistribute the land at intervals. This usually took place every ten or twelve years. The families lived in separate houses all placed

near each other, close to the center of the commune. Since the whole scheme was based on equality within the commune, each family must share in the good and poor land and in that close to and distant from the village. This resulted in a system of strip farming, anywhere from eight to forty of these narrow strips being assigned to a family. The attempt to farm land split up in this fashion resulted in a vast amount of wasted energy. Further, since the peasant was not assured of the permanent possession of a given strip he had little incentive to improve it. Again, almost from necessity, he had to follow the same rotation of crops as his neighbors, because only in this way could he secure needed help in cultivating and unless his strip was in grass or stubble when the neighbors' flocks were pastured he had no protection. It is easy to see the evil effects of this system, especially when coupled with an absolutely illiterate peasantry.

Little or no progress was made under this system. Following the first revolution in 1905-1906 the Government instituted an agrarian reform, and in 1906 made provision for individual peasant ownership of land. Because of the illiterate character of the peasant and his utter lack of initiative, little progress was made. An attempt was made to give the peasant his land in a compact farm on which he could have his home, but the transfer of some twenty million peasants, often against their wishes, was a colossal task. Considerable progress was being made and a progressive ministry of agriculture was making some headway against the inertia of the peasant when the Bolshevik revolution undid all that had been accomplished. According to accounts, they have gone back to the old communal life to a large extent.

After the revolution the Soviet Government nationalized all the lands and

abolished both rent and wages. The peasants were assigned lands to be cultivated. The refusal of the peasants to grow crops from which they, individually, could not reap the benefit was one of the large contributing causes for the famine conditions which prevailed. The Soviet Government has recently modified its tenets with regard to agriculture and has permitted the peasant much greater freedom to enjoy the results of his harvests. The idea of State ownership of land has not been relinquished, but it is probable that some system of practically perpetual lease will be worked out.

What the final results in Russia will be can hardly be foretold, but many years must still elapse before Russia can take the place to which her resources entitle her in agricultural production.

RESULTS OF AGRARIAN REFORMS

I have not attempted to cover the mass of detail involved by the agrarian reforms in the different countries. This would require much more time than is available here and probably would not be of general interest. I have tried to bring out the general trends of this movement and the broad principles involved. It is important to appreciate that agrarian reform in European countries has been going on since the early days of feudalism, and that the World War has only served greatly to hasten a process which was already well under way. This movement will undoubtedly stand out in the future as one of the great accomplishments in human progress which has resulted from the upheaval and bloodshed of the war. Had it not been for the disturbances wrought by the war, it would probably have been many decades before the Roumanian peasant, for example, received the rights set forth in the decree of December, 1918.

The peasants of Europe have now won significant advantages in their age-long fight against the landlords and nobility. If the reforms are ultimately carried out in manners proposed they will undoubtedly have significant results for the future of Eastern Europe.

With the peasant in permanent possession of sufficient land to insure a livelihood and competence to his family, one of the inherent attributes of human nature will have been satisfied. This will result in a significant change in the psychology of the peasant. In the past the Eastern European peasant could never see the necessity of emigrating from his native land as long as vast areas of this were held by titled, often absentee, landlords. With the majority of the land in peasants' hands, those who are forced by circumstances to emigrate will, like those from the countries of Western Europe, be more willing to make their homes abroad instead of returning to harass their government.

Much still remains to be done by the governments of Eastern Europe if these reforms are to accomplish results of lasting benefit. In the first place, the peasants must be taught modern scientific agriculture. The age-long system of farming based upon custom and habit must be supplanted by one founded on science. Adequate means for agricultural credit must be provided. Agricultural coöperation must be encouraged. Again, the government must see to it that the peasant holdings are not split up by dichotomous inheritance until the holdings are too small to support their owners. Government must also see that no unnecessary restrictions are placed upon the movement of farm products either inter- or intra-nationally. And finally, the peasant must be allowed to enjoy the benefits of individual initiative.

When these and similar reforms have been accomplished, as they ultimately will be, the agriculture of Eastern Europe will not only be more productive

than in the past, but a contented peasantry will contribute to a better, a more efficient, and a more stable government.

DISCUSSION

By WILLIAM S. CULBERTSON

United States Tariff Commission

I wish only to add a few words to the valuable addresses of Dr. Surface and Dr. Gray. The analogy suggested by Dr. Gray between the United States and Great Britain should not, in my judgment, be pressed too far. There is little similarity between the situation in Great Britain at the time of the repeal of the Corn Laws and in the United States at the present time. The repeal of the Corn Laws in England was a great social reform as well as a change in fiscal policy. Land in England was held by a comparatively small number of persons who received, in the form of rent, the profits derived from the high price of grain. In this country, on the other hand, there is a very wide distribution of land holding and the owners of land are directly affected by losses or gains in agricultural production. If, as Dr. Gray says, there is to be in this country a "fateful decision," it is probable that it will be made by the American farmers.

The human factor is very important in the analysis of any national policy. Possibly this is more true of agriculture than of other pursuits. I can, perhaps, indicate its character more effectively by contrasting two letters which I have received since coming to Williamstown. The first is from a farmer who for over fifty years has experienced the hardship of agriculture in one of the less-favored sections of our Middle West. This farmer wrote in July, 1923:

we have had rather a hard year for crops

we did not get much rain nor snow from Nov. until 14 of May and then it rained so much that farmers could not get in Spring crops until it had got late and the last Friday in June they got a big hail storm and in about 15 minutes the harvest was all gone the ground was covered with hail so what the drouth left us the hail got so we will have no wheat money. . . . I will have to buy my seed wheat I had sold the . . . place and 4500 was due the first of September and the man had 5 hun acres of wheat and 2 hun acres of barley and in 15 or 20 minutes all gone some had their crops well insured but he was a good Christian man and he trusted God but he did put 11 hun dols insurance on his barley so he will get that to seed the ground again he ows me over 4 thous dols but cannot now pay the interest on it . . . it is hard on us all times is very hard here on the taxpayer as the roads and schools and other things to keep up and what we have to buy is so high.

You will see that these difficulties are unavoidable. They are the misfortunes of nature. In many cases they are accepted with resignation. But the American farmer has come to believe that there are other wrongs from which he is suffering that are remediable. He believes that there are certain conditions operating today to keep him in the status of a colonial agriculturist who furnishes foodstuffs and raw materials to industrial communities. In many cases he is suffering from the difficulties of financial deflation. In this respect agriculture is injured more than any other industry

not only because it is a long-time industry but because it is largely a matter of individual enterprise and reserves are not built up except under unusual circumstances to aid over-hard times. Young men, who have been thrifty and saved money and who have started in farming in recent years, were forced to go heavily into debt. The character of agriculture is such that it will be many years before these farmers can get out from under the debts which they have incurred.

It is conditions such as these which have led the American farmer to seek relief in politics. Mr. William Allen White of Emporia, Kansas, has been for over thirty years a keen, critical observer of conditions in the Middle West, and no man is better able than he to analyze the forces that are operating. In a personal letter dated July 26, 1923, he said:

I have your letter asking what I think the election of Johnson, of Minnesota, signifies in political and economic terms. I have been thinking it over pretty carefully for several days. In fact, more than a year I have been feeling that the economic conditions here in what might be called the western Mississippi basin would take a strongly marked political turn.

Basically our trouble is the old trouble we have had for forty years—transportation. We have to ship everything we sell to a buyer and put transportation in everything we buy from the maker. We are overloaded with freight rates. In every Pittsburgh-plus transaction which governs American prices and makes every industry a national instead of a local industry,—steel, lumber, fuel, food and clothing,—the Missouri valley and enviroing communities have to pay the price for nationally stabilized industries.

In prosperous times, there is enough margin in agriculture and those local industries dependent upon agriculture here in the Middle West to give the farmer and his friends a profit. So he is peaceful. But when the economic pinch comes, the farmer

feels it and he is intelligent enough to realize that he is suffering from a remediable wrong. He may be unwise in looking to politics for his remedy, but he does look to politics for a remedy and, when he gets into politics, he raises the very devil. The middle-western farmer of Iowa, Minnesota and Wisconsin was an accomplice in the Peter Cooper movement, and the Greenback movement nearly fifty years ago. The railroad legislation of the mid-seventies was rightly called farmer legislation. Thirty years ago, the farmers of Kansas, Nebraska and the Dakotas gave backbone to the Populist movement and ten years ago, as you know, the Bull Moose found his best pasturing out here.

Each of these movements—futile in itself—left a permanent impression upon politics of the country and its institutional life. This part of the world is responsible for national prohibition, it pioneered in woman suffrage, gave impetus to the demand for direct election of United States senators, the passage of the income tax amendment, the adoption of the direct primary and a lot of propositions of that sort.

It is a curious thing that when the farmer gets mad because he is unfairly treated in the matter of transportation, he forgets more or less about the transportation question and does something else.

Now this is a long way around to Magnus Johnson. But Johnson's election, taken with that of Shipstead, Frazier, Ladd, Brookhart and the tremendous majority given LaFollette, the victory of Ferris in Michigan and the obvious complex of Nebraska and Kansas as revealed by the recent election, proves very definitely that the Middle West is on the rampage again.

THE FARMER AND THE TARIFF

In order to present as clearly as possible the meaning of the tariff to farmers in the United States today, I have prepared the following classification of foodstuffs dividing them into three general groups according to the degree of dependency of the United States on foreign countries.

1. Practically total dependency of the United States on foreign countries.

1. Coffee
2. Tea
3. Cocoa
4. Spices
5. Bananas
6. Sago and arrowroot
7. Tropical nuts
8. Copra and coconut oil
9. Soy bean oil
10. Olive oil
11. Sesame, palm and palm-kernel oils
12. Some garden seeds
13. Greek currants

2. Partial dependency of the United States on foreign countries.

1. Sugar
2. Fancy cheese
3. Dried and frozen eggs
4. Fish
5. Honey
6. Almonds and walnuts
7. Chestnuts
8. Figs and dates
9. Lemons
10. Grapefruit
11. Olives
12. Pineapples
13. Mushrooms
14. Peanuts and peanut oil

3. Adequate domestic supply and in some cases an exportable surplus.

1. Corn and corn products
2. Wheat and wheat flour
3. Other grains and grain products
4. Hog products
5. Beef
6. Mutton
7. Fresh and condensed milk
8. Butter and butter substitutes
9. Cheddar cheese
10. Lard substitutes
11. Cottonseed oil
12. Poultry
13. Rice
14. Apples and pears
15. Peaches, apricots and prunes
16. Oranges
17. Potatoes
18. Late onions
19. Beans
20. Summer vegetables
21. Hops

No tariff generalizations on the basis of this classification are possible. Even when we are totally dependent on an outside source for an agricultural product, it is not always true that the tariff interest is absent. The producers of butter and lard in the United States, for example, are concerned over the importation of tropical vegetable oils. Producers of products in the second class tend to be the most actively interested in the tariff. Typical of this group are the sugar and lemon producers. Producers of products in the third class, while not without an interest in tariff rates, regard other Government aid as of greater importance than tariff protection since in the case of many products with an exportable surplus prices are fixed in the world market. Among these are coöperative marketing, farm credit, Government regulation of middlemen, reduction of freight rates, maintaining better farm life through the assistance of agricultural colleges, the building of roads, and the teaching of vocational agriculture in high schools, either with or without Federal Government assistance.

Agricultural industries are obviously dependent upon geographical and climatic conditions. It follows, therefore, that many factors other than political action determine the localization of these industries. In a few regions the soil and climate restrict production to a single product. Normally, however, the farmer has a considerable choice of products. The choice he makes depends upon competition and competition is affected by many factors.

THE FARMER'S INTEREST IN TRANSPORTATION

Among these transportation is of great importance. Large areas of the earth's surface have been rendered productive only because of the develop-

ment of railroads and steamship lines, and there are still large areas of the earth's surface which can be made available for cultivation, if transportation is extended. With the development of transportation, particularly of refrigerating facilities, international competition in food and food products has become an outstanding factor in world economics. From the standpoint of the consumer, it has contributed towards a stabilization of supply, thus reducing the hardships resulting from local shortages of crops and perhaps eliminating the possibility of serious famines.

From the standpoint of the producer, transportation facilities have extended his markets, but they have also increased the keenness of international competition. The effect of cheapening transportation upon the agricultural industry has been strikingly illustrated in American agricultural history. The building of canals and railroads in the United States between 1820 and 1860 was largely responsible for the decline of wheat growing in New England and New York. In the eighties of the last century, European agriculture began to feel and to fear competition with agricultural products imported from frontier countries such as the United States. This was one of the factors which contributed to the agrarian movement for protection in such countries as France and Germany. American wheat and American meat products were in some cases even *excluded* by high import duties and sanitary regulations. Competition of a similar kind is now a factor in the movement for agricultural protection in the United States.

In addition, there is keen competition between the exporting countries themselves. American wheat, Argentine wheat and Canadian wheat compete in the European market. Cotton-

seed oil produced in the United States competes in the international market with soya bean and coconut oil produced in the Orient.

OTHER FACTORS IN AGRICULTURE

The type of agriculture frequently depends not only upon transportation but upon the size of the agricultural unit. If agriculture is organized in a large way, and carried on in large farms, or estates, the nature of the crops is likely to be different from the case where small peasant farming is the rule. The breaking up of the large estates in Eastern Europe is, as Dr. Surface has said, having a striking effect upon the character of agriculture.

The availability of agricultural laborers is also a factor in determining the nature of agriculture production. Before 1914, the estates in eastern Germany depended upon Polish and Russian labor which, during certain seasons of the year, migrated to the estates. This supply has to a large extent been cut off by the changes wrought by the war. This will require a shift to crops which can be handled by fewer men and more machinery.

Types of food peoples eat also influence the agricultural development of a country. Rice holds a place in Japan which is occupied by practically no one cereal in any other country. Unless the Japanese people are willing to adopt some other form of food to supplement rice, the rice question is likely to become of a serious importance in the Pacific. The peoples of India and China are non-meat eating and non-milk drinking peoples, and this affects the character of their agricultural production.

It was the theory of Friedrich List that the tropics would become a great source of food supplies for the temperate zones and that the temperate zones would become primarily manu-

facturing centers. The tropics, however, at the present time, are not primarily a source of food so much as a source of raw materials and food specialties. The tropics today produce rubber, vegetable fibers, coffee, tea, cocoa, fruits, nuts and certain kinds of tobacco and vegetable oils.

Food in the more restricted and important sense—that is, staple food products—come from the temperate zones. It is necessary, therefore, to consider the relationship which exists

today between the older, the more densely populated industrial nations in the northern hemispheres, and the agricultural countries, less advanced industrially in the northern and southern hemispheres. This is the important relationship from the standpoint of supplies of stable food products. The relationships between the industrial countries in the temperate zone and the tropical countries is, however, of vital importance in connection with the supply of essential raw materials.

Preferential Tariffs and the Open Door

By BENJAMIN B. WALLACE
United States Tariff Commission

THE American Secretary of State in an address last December in New Haven said:

The open-door policy is not limited to China. Recently we have had occasion to apply it to mandated territories. It voices, whenever and wherever there may be occasion, the American principle of fair treatment and freedom from unjust and injurious discriminations.

The Secretary of State with a caution which was necessary under the circumstances gave no indication of the occasions which may call for the application of the open-door policy. But his statement forms a useful introduction to a general discussion of the open door, a discussion of it as a "principle of fair treatment" or of equality of treatment for the commerce of all nations. Too many people have looked upon the open door as a policy applicable only to China or to the Orient. Some have gone so far astray as to confuse it with free trade. For instance, Walter Lippman in his *Stakes of Diplomacy* speaks of "free trade, which is only another name for the open door." His confusion is the

more surprising as his whole book is an argument for the international enforcement of the open door in the economically backward parts of the earth, and if a writer on that subject can fall into such confusion there is every reason to believe that the general public is in great need of education on the subject. There is also need of education on the subject because some of the learned books¹ contain a definition which may perhaps be defended upon historical grounds but which is narrow, formal, rigid, and quite unsuited to the needs of diplomacy and commerce. Particularly, it is unsuited for popular use, and in a democracy where phrases and catch words have such tremendous power, it is very important that a phrase so striking should have a simple meaning and one founded upon a simple principle.

Before laying down four propositions in regard to the open door it should be said that equality of treatment for the commerce of all nations must include

¹ For instance, Dr. Sigmund Schilder's *Entwicklungstendenzen der Weltwirtschaft* and Josef Grunzel's *Economic Protectionism*.

many factors which influence commerce in addition to import duties, harbor dues and railroad rates. It must include, as circumstances require, equal opportunity to compete for, or to participate in, mining and forest concessions, charters for banking and industrial corporations, and state loans and contracts for public works. This is a most important and most difficult part of the subject; but it is not closely related to preferential tariffs and is beyond the scope of the present discussion.

FOUR POINTS IN THE OPEN DOOR

The *first* of our four propositions concerning the open door is that *the term open door is and should be of universal application*. It is, and should be, used in regard to certain colonial possessions. It is less frequently, but should be, applied to certain other colonies which are bound by no treaty obligations. It may equally well be, and should be, used in regard to the states of Europe and of the Americas in so far as their policies and practices meet the requirements of the term.

Secondly, the term open door implies and should imply a policy extended equally to all nations. According to some definitions an open-door country may impose differential duties upon products of other states if only it does not violate its most-favored-nation treaties—treaties which usually have been made with the older and stronger commercial states. Such definitions would allow us to continue to call a country an open-door country if it granted to perhaps only two or three European countries the treatment stipulated in a certain type of treaty, regardless of the discriminations which it might be making against all other countries of the world. In the field of politics it is not well to insist on rigid definitions admitting of no exceptions,

but unless the exceptions are trivial, it is obviously an utter denial of the whole principle upon which the open door rests to affirm that an open door may be open to the strong and closed to the weak. Our next proposition will emphasize the importance of this point.

Thirdly, the test of the open door is, and should be, performance and not treaty pledges. The open door is one which is open in fact, irrespective of formal obligations, but some learned gentlemen have refused to admit that a door is open unless it is secured in that position by "irrevocable treaties." But if our second proposition be admitted, it would follow from such a restriction as this, that no country could be called an open-door country unless it were under a treaty obligation or a series of obligations to grant equality of treatment to products of all countries. But when one examines the treaty obligations of open-door countries, one finds that such an obligation scarcely exists. The term open door has been applied to China for two decades or more, but it was not until the signature of the Nine Power Treaty that China engaged herself in general terms to maintain the open door, as distinguished from her several earlier obligations to grant most-favored-nation treatment to products of the several countries who were parties to treaties with China. Morocco pledged the open door in 1880 only to the dozen signatories of the Treaty of Madrid and while the act of Algeçiras laid down the principle of "economic equality without discrimination," we now find that the French rulers of Morocco have imposed heavy penalties on the importation of German goods. The Conventional Basin of the Congo has been an open-door region for nearly forty years and technically its treaty obligations to maintain this status appear to be

complete; but it may be noted that the principal allied countries did not so construe these obligations in 1919; that is to say, they undertook to revise the General Act of the Conference of Berlin (1885) and to restrict the guarantee of equality of treatment in the Congo Basin to states which are members of the League of Nations. Similarly the open door in the mandated territories is not guaranteed to non-members of the League.

We cannot stop to discuss certain other cases in which, by bilateral treaties or by exchanges of notes, pledges of equality of treatment in certain colonial possessions have been given in general terms. The typical position, however, is that an open-door country, or a mother country in respect to a colony, has made from one to seven or eight or possibly a dozen treaties which pledge equality of treatment for either a limited, or an indefinite period, and that the maintenance of the open door for the rest of the world rests wholly upon the policy of that state. This is the situation of Siam, Persia, Turkey, Ethiopia and Egypt, and was the situation of Korea and Tunis, and of Zanzibar before it adhered to the General Act of the Berlin Conference. It is the situation in American Samoa, in British Nigeria and the Gold Coast, in French Dahomey and the Ivory Coast; and it was the situation in regard to all the German colonies except Southwest Africa. Ethiopia has a single most-favored-nation treaty of indefinite duration, and the maintenance of the open door in the Philippines from 1898 to 1909 rested upon a single treaty.

Fourthly, the open door does not mean and should not mean free trade or limited tariff rates. It is true that most of the older states in which the open door exists do have their tariff rates limited by treaty to certain specific

rates, or to certain *ad valorem maxima*, but it is generally agreed that such a restriction is not an essential feature of the open door. The diplomats who in 1919 revised the General Act of the Berlin Conference, and abolished the limit of 10 per cent *ad valorem* upon import duties, would never have admitted that they were thereby destroying the open-door principle.

Some may object to any definition which would allow the application of the term open door to countries which maintain protective tariffs. But the distinction between tariffs for revenue and protective tariffs is one which is impossible to draw, except in an arbitrary way. It is very doubtful whether a single country can be named (aside from a few places that may be designated as free ports) whose tariff is totally without protective effect. Great Britain, long the leading exponent of free trade, has avowedly protective duties² of 33½ per cent *ad valorem* upon automobiles, typewriters, musical instruments and clocks and watches. Avowed protection bobs up in the British colonies with their tariffs for revenue; e.g., in Jamaica, the Straits Settlements and India. There was quite a contest between Lancashire and Indian interests over the protection afforded by the difference between the Indian import duty of 7½ per cent and the excise duty of 3½ per cent levied upon cotton goods. And it has been pointed out that even the tariffs of the open-door countries in which the rates are limited to 10 or 11 per cent or less, have shown protective effects. Protective duties have an insidious way of creeping into tariffs

²The writer has sometimes been told by Britishers that these duties were "for revenue only." It is a sad commentary on the difficulty of clear thinking that anyone should be able to call a duty of 33½ per cent upon highly competitive manufactured articles, such as automobiles, a revenue duty.

for revenue only. Substantial revenue duties are frequently imposed upon luxuries, or other articles, all of which are imported when the duty is imposed, but the manufacture of which is stimulated by the very height of the duty, and the duty becomes automatically a protective duty.

Summing up our four points we find that the open door should be a term of universal application without geographical limitation; that it must imply the granting of equality of treatment to products of all nations; that it rests upon policy and not upon treaty obligations; and that it means uniform duties without necessarily meaning low rates.

We may then define an *open-door country*, in regard to the limited aspect which we are now considering, simply as *one which has adopted and enforces a policy of making no discriminations between nations, or of granting equality of treatment to products of all countries.* This definition makes the term open door applicable to the Orienta l countries which are bound by fairly numerous treaties, to colonies where the open door rests on a very slight treaty basis, to colonies such as the Dutch East Indies, India, and certain British Crown Colonies where the open door has no treaty basis; and it applies to certain countries of Europe and the Americas which follow the policy of imposing single rates of duty, or, if they reduce their rates in commercial agreements, generalize the concessions for the enjoyment of all countries.

It should be emphasized that no definition of the open door is satisfactory which denies the applicability of the term to colonies like the Dutch East Indies and British India where the door is open in fact, and has been open for decades. A door which is voluntarily held open should unquestionably be recognized as an open door. On the other hand, treaties are some-

times ratified without enthusiasm, and the question might be raised whether one should designate as open-door areas certain colonies, protectorates, mandated territories, or spheres of influence where pledges have been given in formal treaties that the door will remain open, but where the officials of the governing nation more or less openly use their powers to impose greater burdens upon merchandise the product of foreign countries than upon similar merchandise produced by their fellow-countrymen.

According to our definition, the whole world may be divided into open-door states and colonies, and states and colonies which levy discriminatory duties. The discriminatory duties may be divided into those which discriminate in favor of other parts of the same empire and those which discriminate for bargaining or retaliatory purposes. These bargaining and retaliatory tariffs lie outside of our present topic, and we return to the subject of discriminatory tariffs in the colonial empires.

DISCRIMINATORY TARIFFS IN COLONIAL EMPIRES

The discriminatory tariffs of the colonial empires commonly go by the name of preferential tariffs. The term is well understood to refer to the tariff of the colony or the mother country which is more favorable to products of a part, or the whole, of the remainder of the same empire than to products of countries outside of that empire. It is commonly used in the British Self-Governing Dominions,³ and, if used at all, might well be confined to their tariffs. It carries a connotation of a

³ The writer uses Dominions (capitalized) to refer to the Self-Governing Dominions as distinguished from other possessions of the Crown. Newfoundland is a Dominion, but has no general differential tariff.

voluntary and uncompensated concession which makes it less applicable to other colonial possessions which for the most part have not been, to put it conservatively, altogether free to choose their own fiscal arrangements. But even the tariffs of the British Dominions, while their beneficiaries may well call them preferential tariffs, are, from the point of view of outsiders, differential or discriminatory tariffs; and as the outsiders are always so much more numerous than those inside, it would seem that differential was a more appropriate term. This is particularly true from the American point of view since our own colonies are almost negligible compared either to the total colonial possessions or to the mother country. The average figures for the other colonial empires show possessions that are twenty-five times as extensive as the mother country and two and one-half times as populous. In the American empire, if one may use the term, the proportions are more than reversed.

The subject of colonial tariffs is not unimportant. Nearly one half of the world's surface is held in colonial status, and one third of its population. Including the British Dominions and the mandated territories, the world's colonies cover $21\frac{1}{2}$ million square miles and have a population of 550 millions. They cover a fraction of Asia, half of North America, all of Africa except Ethiopia and Liberia⁴ and all the islands of the Pacific and Indian Oceans except Japan. France and Great Britain together hold 85 per cent of the total area and 82 per cent of the total population of the world's colonies. The total trade of the colonies in 1913 was 18.3 per cent of the world's total, which was an increase over the percentage of 1903, which was only 16.1 per cent.

⁴ And perhaps we should add now Egypt.

As already stated it is not well to demand too rigid adherence to definitions in non-scientific fields. Secretary Hughes, you may recall, spoke of "unjust and injurious discriminations." The term open door has been and is usually applied to territories in which there are minor departures from absolute equality in import tariffs. Thus, until China revised them in accordance with her recent open-door treaty, she had had for decades lower duties upon overland imports than upon imports by sea. The same was and is true of Morocco and the Sudan. Turkey has had short tariff wars with several of the Balkan States. Palestine and Tanganyika, where the open door prevails under the supervision of the League of Nations, grant free admission to products of Syria and of Kenya, respectively. Perhaps such exceptions have been unknown to the men who have discussed the open door in relation to these various countries; if so their ignorance tends to prove the unimportance of the exceptions. If they knew of them and ignored them, that is proof that they regarded them as insignificant. There is an old legal maxim, *de minimis non curat lex*, which is in point.

This brings us to the question whether there may not be other kinds of preferential or differential duties which are so unimportant that in spite of their existence the colony or the mother country in question should be regarded as an open-door area. Leaving aside such exceptions as are trivial in a statistical sense, are there any classes of differential duties which are unimportant by nature regardless of the height of the duties? While dealing with the differential duties we may also consider them from the point of view of the injury which they inflict and the economic advantage which they give either to the colonies or to the mother country.

FOUR CLASSES OF COLONIAL DIFFERENTIAL TARIFFS

The differential duties with which we are dealing may be divided into four classes, namely, import duties and export duties in the mother countries and the same duties in the colonies.

1. *Remitting Export Duties on Shipments to Colonies*

Under present circumstances, or any that we can foresee, it may be said that evidently of these four classes that which is of least importance to other industrial countries is the export tariff of the mother country. In many cases the mother country will impose no export duties; if imposed they will presumably fall upon raw materials or foodstuffs as their motives will be conservation, revenue, or the protection or stimulation of local industries by securing cheaper supplies of raw materials. Only in the rarest instances will they be imposed upon finished articles and never where there is competition in the export trade. Export duties upon raw materials may indeed be very harmful to other industrial countries, but it is most unlikely that those countries will find any substantial addition to the burden in the fact that the export duty is partially or wholly remitted upon exports to the colonies of the said power. With very minor exceptions the colonies are not now and are not likely soon to become industrial rivals and commercial competitors of the great industrial states, and when they do become such rivals, they will almost certainly use their own raw materials and not raw materials derived from a mother country. We can only conclude that, however common it may become for the colonial powers to levy substantial export duties, the *differential remission* of these duties upon articles shipped to their colonies will

never be felt in other countries as a serious grievance. If the United States should find a constitutional method of imposing a prohibitive duty upon the exportation of coal to all points except American possessions, the Canadians would doubtless raise objections, but their objections would be to the duty, and not to the exceptions in favor of Guam and the Philippines.

2. *Lower Import Duties from Colonies*

Secondly, the colonial powers except Holland and Belgium grant differential rates in favor of imports from their colonies. These imports may be divided into two classes, industrial raw materials and foodstuffs, and the latter may again be divided into the tropical products known in Europe distinctively as colonial products—tea, coffee, cocoa, spices, etc.—and semi-tropical or temperate products which compete with the products of the temperate zone, that is, of the mother country. Such products are sugar and tobacco, and various cereals, fruits and nuts. Upon the industrial raw materials there is usually no duty or a very low one, so that the differentials are not likely to be important. Upon the so-called "colonial products" there are usually imposed substantial revenue duties, and the remission of even a minor fraction of these duties may be an adverse factor of considerable importance to competing countries. These competing countries are tropical countries and do not include the great industrial states which are most apt to make their voices felt. The latter are most likely to be affected by and to be interested in differential duties upon sugar, tobacco, cereals and other temperate products. They are also interested in these differential duties from two other points of view—first, that the interests of their colonies are affected by all the duties

mentioned, and secondly, that the differential duties are used to build up financial and shipping connections between mother country and colony, and these connections give the mother country an added advantage in the import trade of the colony. This import trade consists of manufactured articles in the exportation of which the industrial countries are most interested. Thus, while the differential import duties in the mother countries have little adverse effect upon the importation of the manufactures of other countries,⁵ these duties directly and indirectly are not negligible in their effects upon the other countries and other colonies of the world. The subject deserves more study; at present one should not be dogmatic about it. Further investigation will give a better basis for a judgment upon the question whether a strict adherence to the policy of the open door should involve the abandonment of preference granted by the mother countries to their colonies.

The differential duties conceded by the United States, Great Britain, France and other industrial mother countries tend to *reduce* rather than to increase the supply of industrial raw materials produced by their colonies. In so far as these duties make it more profitable for the colonists to produce the *dutiable* articles—sugar, tea, coffee, cocoa, tobacco, cereals and spices—they tend to check the production, or the expansion of the production, of raw materials like cotton, manila and rubber.

The extent to which these differential duties of the mother country make it more profitable for the colonists to produce the dutiable articles is a complicated economic problem into which we cannot go at present. We may say,

⁵ Canadian competition with the United States in exporting automobiles to Great Britain is almost the sole exception.

however, that, regardless of the amount of the differential, the colony is most apt to gain a positive economic advantage from the duty when the mother country consumes a given commodity in excess of the production in the colony or colonies to which the differential rates are granted. In a general way, therefore, the colonies of the United States, which are very small in comparison with the mother country, are much more apt to derive such an economic advantage than are the colonies of Great Britain and France.⁶ It is generally admitted, for instance, that, since the British colonies supply more tea than Great Britain can consume, the British differential upon tea is of little or no benefit to the British colonies, though the Chancellor of the Exchequer reckons the loss of revenue at two million pounds sterling.

3. Lower Import Duties from the Mother Country

We may consider, thirdly, the import duties of the colonies and differentials therein. This brings us to the heart of the open-door principle. It is obvious that when the mother countries have so many other advantages—language, national sentiment, the home connections of officials, merchants, engineers, etc.—that, even in those colonies where the door is and has been for a long time wide open, the trade of the mother country tends to prevail over that of all other countries, it is even more important than in independent countries to insist that the open door shall mean an absolute equality of foreign countries with the mother country in such

⁶ The table of Colonial Tariff Policies on page 5 shows the population of the United States to be nine times, and its area thirty times, that of its colonies; while the populations of Great Britain and of France are to those of their colonies as 1 is to 8.5 and 1.4 respectively, and their areas, 1 to 104 and 19, respectively.

formal matters as import duties, harbor dues, and railroad rates.

Differential duties in a colony in favor of the mother country cannot be, in themselves, of benefit to the colony. How much they are a direct injury to the colony depends upon circumstances and is a matter for argument. The people of British India, so far as one can judge, have definitely decided that differential duties in favor of British goods would cost more than would ever be gained from differential duties in other parts of the Empire in favor of products of India. A considerable number of French writers believe that the application of the French tariff to the French colonies has been a substantial injury to the colonies. Perhaps we may say that in general it is probable that the extension to a colony of a tariff framed for the mother country, as in the case of the French and the Japanese colonies, is more liable to be injurious to colonial interests than are tariffs framed separately for each colony as in the case of the Philippines and all the British colonies.⁷

The injury to colonial interests of differential rates in favor of the mother country of course lies in the restriction of the market. Assuming, as is almost always the case, that the colony has a general tariff and a general system of reductions to products of the mother country, those colonies are apt to suffer least that are attached to the greatest industrial states with the widest range of products, and the most diversified export trade. France, for instance, is

⁷ Theoretically, of course, such special tariffs might be more restrictive of trade than is the tariff of the mother country, but in practice this is not true, except in the colonies of Great Britain, Holland and possibly Belgium, in which, if the colonial tariffs are higher than those of the mother country it is because the rates in the mother country are low, and not because those of the colony are unduly high.

a great country. But its colonies suffer because its exports tend to run to luxuries and articles of finer quality which are not suitable to the colonial market. No one appears to have made any thorough study of the injury of differential tariffs to colonies, but in general it seems likely that such tariffs are less injurious to colonies of the United States and Great Britain than to the colonies of Japan, France, Spain, Portugal and Italy. General considerations, therefore, seem to indicate the probability that the American colonies suffer less from the differential colonial duties and gain more from the preferences conceded in the mother country than do the colonies of other powers. But a statistical evaluation of colonial gains and losses from the existing systems is a work of great magnitude and difficulty, and remains yet to be done.

Differential import duties in the colonies are undoubtedly incompatible with the principle of the open door. But a discussion of the occasions upon which the open door should form a political objective lies outside of the sphere of this paper, as do the various arguments which have been put forward in support of the open door—such as that it alone will save the natives of colonies from being exploited through the tariff; that Great Britain and to some extent France were allowed to acquire their immense domains only because of their liberal professions and that a closing of the door is a breach of faith; that the British Dominions are now independent nations and as such cannot discriminate in favor of other parts of the British Empire without an unfriendly discrimination against their sister nations.

4. *Lower Export Duties to the Mother Country*

Finally, we consider differential export duties in the colonies. These

duties, if levied in small colonies producing a small part of the world supply of a given commodity, merely constitute, as it were, artificial channels which conduct the produce of the colony to the mother country, and to nowhere else. If it is necessary to impose the differential duty in order to make the trade take that route, obviously the duty narrows the market of the colonial producer, and therefore injures that producer. For instance, had the differential duty not been imposed upon Nigerian palm kernels, the natives would have had the Germans and to some extent the Dutch and others competing with the British for the supply, and the price would undoubtedly have been higher.⁸

A more important case to consider is that of a colony or various colonies within the same empire, which have more or less of a monopoly of the production of some commodity. This case is important because it is precisely in this situation that the temptation is greatest to impose such a duty. And when the Indian Government imposed the differential export duty upon untanned hides and skins, it defended its action precisely on the ground that it believed that India possessed a sufficient approximation to a monopoly so that the producer would escape the effects of the duty and the burden would be passed on to the foreign consumer. In proportion as the monopoly is not complete, however, a portion of the

burden is liable to fall upon the producer. In any case the benefit of this type of duty normally accrues to the inhabitants of the mother country, though in some cases it has been alleged that shipping interests swallowed up the benefit.

A differential duty of the ordinary type, say that used in the Portuguese colonies, benefits national shipping and tends to build up the entrepôt trade in the mother country. It may be a benefit to national industry or it may do no more than force the colonial products to find their final market by a circuitous route. A considerable part of Lisbon's trade is in colonial products which are reshipped from that port.

A type which is much more extreme and which may require much attention in the future is the export duty with a manufacturing proviso attached to it—i.e., a general duty is imposed with a proviso by which it is remitted in whole or in part if bond is given that one or more processes of manufacture will be applied to the commodity before it is exported from the mother country. This is obviously a duty imposed for the purpose of aiding the industry of the mother country, but it must be sharply distinguished from a protective duty of the ordinary type. Export duties levied upon raw or half-finished products, whether they are levied in a colony in favor of the industries of the mother country or in an independent or semi-independent country in favor of its own industrial development, have little in common with protective import duties; at least this is true wherever there is an element of monopoly in the case. If Great Britain wishes to build up the business of crushing palm kernels, the protective tariff method is to put an import duty on the finished product—palm kernel oil. This duty serves notice on the world that thereafter Great Britain intends to supply

⁸The argument of J. H. Batty, quoted by Colonel Lugard (*The Dual Mandate in British Tropical Africa*, p. 270) is interesting but not convincing except in the sense that the duty has not proved disastrous to the native producers. His argument is that the British took all palm kernels and that the Germans kept up the price by buying a substitute, copra. In other words, the American wheat grower might well be indifferent to any restrictions which foreign nations might place on wheat alone, since competition for substitute cereals would have the same effect as competition for wheat!

her own market with this oil; and if the duty be high enough, it serves notice that no special brand or quality of the oil, however closely adapted to some special purpose, shall enter from abroad. But if Great Britain, taking advantage of the fact that British West Africa produces most of the world's palm kernels, chooses to impose one of these export duties with a manufacturing proviso, she serves notice that, in so far as the rest of the world is dependent on the British West African raw materials, other countries may dismantle their crushing factories, that thereafter Great Britain will manufacture the whole supply, and that, if any foreign country wishes to consume any palm kernel oil, it shall pay whatever tribute Great Britain chooses to exact therefor.⁹ The protective duty simply reserves the home market to national industry; the export duty, in so far as foreign countries are dependent upon that supply of raw material, is an aggressive duty, intended to raid the industries of foreign countries, to drive them out of their own markets and to make these foreign countries permanent tribute-payers to the possessors of the raw material.

This distinction seems to have escaped attention. The *Montreal Gazette*, for instance, recently spoke with great complacency about the proposed Canadian embargo (which is one degree more drastic than an export duty) upon pulp wood, saying:

The tone and purpose of the discussion which has arisen in the United States contrast curiously with the cheerful alacrity with which these same interests helped to enact a law shutting out surplus Canadian products from the United States markets;

⁹ It should be noted that the differential duties upon West African palm kernels and Indian hides and skins have been repealed, but the differential duties on tin ore remain in Nigeria and the Federated Malay States.

they contrast just as sharply with this country's philosophic acceptance of a hostile tariff which the United States had admittedly the right to establish.

The *Montreal Gazette* misses the whole point of the contrast between the two kinds of legislation. A protective duty imposed by the United States upon paper expresses the intention, within the economic limits suggested by the duty, of manufacturing all of the paper for American consumption within our own boundaries. A Canadian embargo upon pulp wood, if enforced under the existing circumstances, would express a demand that Americans dismantle their pulp mills, that Canadians be allowed to manufacture the pulp both for themselves and for the States, and that the American people pay tribute to the foreigner for the privilege of reading their newspapers. The Canadians should not be surprised if such a proposal is not received with that "philosophic acceptance" which the *Montreal Gazette* affirms characterized the Canadian attitude toward the revision of the American protective tariff.

INTERNATIONAL FRICTION FROM DISCRIMINATORY TARIFFS

This review of differential duties shows that the differential feature of export duties imposed by the mother countries may be ignored; that the differentials in the import duties imposed in the mother countries upon products of the colonies are of substantial importance, more because of their indirect than because of their direct effects; that the differential import duties in the colonies are an obvious violation of the open door; and that of the various duties discussed the one which is likely to have the greatest and most widespread effects is an export duty with a manufacturing proviso imposed on the exportation of raw

materials. A duty of this kind is dangerous because it is apt to be used to transform a monopoly of a raw material into a monopoly of a finished product. It is perhaps likely, there-

fore, that if it ever becomes necessary to revive in this country the old cry, "Millions for defense, but not one cent for tribute," it will be because of the imposition of a duty of this sort.

Origin and Results of Canada's Preferential Tariff

By ADAM SHORTT

Ottawa

IN dealing with preferential tariffs upon a practical basis, it is necessary to consider in detail the circumstances relating to each tariff. In fundamental respects the tariffs of the British self-governing Dominions and perhaps especially that of Canada differ from those of the Colonial dependencies. A discussion of the preferential tariff of Canada must rest upon a knowledge of its origin and characteristics. I shall, therefore, review the tariff history of Canada in recent decades and conclude with certain observations upon the major features of Canada's trade.

THE ORIGIN OF CANADA'S PREFERENTIAL TARIFF

The Liberal party during its period in opposition from 1878 to 1896 steadily opposed the principle of a high protective tariff. In the interests of the public at large, but without prejudice to the manufacturers, they advocated such freedom of trade as was consistent with a tariff for revenue only. They particularly favored the promotion of trade with Britain and the United States. They took comfort and encouragement from Mr. Cleveland's campaigns for a lower tariff. As the people of Canada were beginning to discover that the prosperity promised by the National Policy was rather slow in arriving, the Liberal policy was rapidly making converts. Even Conservative leaders talked tariff reform, though the majority still

adhered to the principle which had brought them into power and had for some time sustained them.

The principle of reciprocal trade, on the basis of treating other countries as they treated Canada, had been frequently discussed, but came more definitely into view during the last years of Conservative rule. The proposition was given special point under the influence of the Dingley tariff, which greatly cooled the ardor of Canadians for better trade relations with the United States, and turned attention towards the value of the British market for Canadian goods and the possibility of a more favorable treatment of British imports in return. At the same time the Liberal party, more particularly under the leadership of Mr.—afterwards Sir Wilfrid—Laurier, recognized the impossibility of altogether abandoning the principle of protection with reference to those industries which had been brought into existence through the National Policy, but which had never been able to outgrow their infancy. Still the party continued to advocate a considerable readjustment and modification of the protective principle, in the interests of consumers and of industries natural to the country.

Under such pledges, the Liberal party came into power in 1896. Once in office, their views on tariff reform were still further modified. This was in some measure due to the representations of the manufacturers before a

tariff commission which the new government appointed. Resentment at the anti-Canadian¹ clauses in the Dingley tariff had been steadily growing, while the liberality with which Britain had treated Canadian imports was, by contrast, being more vividly realized. The Liberal Government, therefore, on succeeding to office, found itself between two fires. On the one hand it was expected to redeem its pledges to favor the consumer and lower the tariff, while on the other it was urged to respect the established system under which the industries of the country had been protected from hostile competition. The principle of reciprocal tariffs afforded a clue to a practical policy of ingenious compromise, which would enable the Government to claim the virtual redemption of its pledges, while at the same time avoiding the unpopular course of ap-

parently turning the other cheek to the United States.

By the new tariff policy of 1897, after a well-considered readjustment of various specific articles, including the raising of duties in a few instances, a general reduction of the tariff by 12½ per cent, except on a few articles such as spirits and tobacco, was granted upon imports from all countries which admitted Canadian goods at equally low rates of duty. This seemingly sweeping reduction of the tariff, which constituted the redemption of the party pledges given while in opposition, was found on examination to apply to no considerable traffic outside that with Britain. In virtue of special clauses in British commercial treaties with Germany and Belgium, goods from these countries were also included,² pending a

¹ To the suggestion that the Canadian tariff was anti-American in greater degree than the American tariff was anti-Canadian, Dr. Shortt replied in part as follows:

Most Canadians know very well that the American tariff, even more than their own, faces the whole world. In studying the nature and effects of the American tariff, however, Canadians observe that many of the articles which they might reasonably expect to export to the United States are such as, owing to the conditions of production or transportation, or both, are not likely to be sent to the United States in large quantities from other countries. Hence the duties which are imposed upon these articles, while stated in general terms, are in practical operation, and commonly in intention, directed mainly against Canadian exports. The agricultural sections of the tariff, for instance, are largely directed against Canada, and with such thoroughness as the customs returns demonstrate.

The fact that the greater part of all dutiable imports into Canada are derived from the United States is surely evidence, not of the anti-American character of the tariff, but of the opposite. The Canadian tariff, while protective in some of its features, is largely a revenue one, permitting very extensive dutiable imports and thus enabling a large revenue to be collected from the Canadian people. Even on this large dutiable import from the United States the average

rate is quite moderate, being lower than the average rate on British dutiable imports, although most of these enjoy the benefits of a preference. If one makes comparison with other countries which do not enjoy the British preference, the favorable treatment of American imports is still more obvious.

[The latter part of the first paragraph, if read with the substitution of "Canadian" for "American" and vice versa (which the facts more than justify) leads to the conclusion that the Canadian tariff is anti-American. The further argument that the American tariff is anti-Canadian because its rates are prohibitive, and that the Canadian tariff is not anti-American because its rates are moderate, might be the subject of a statistical inquiry, but in any case seems beside the point. Surely the terms anti-American and anti-Canadian should be used in reference to the animus of the legislation and not to the effects. If the development of Canadian industries does not warrant prohibitive duties, but the rates of the Canadian tariff whatever they may be are in practical operation directed mainly against American products, one seems warranted in applying the term anti-American—especially in view of the general application to competing British products of rates lower by 10 to 15 per cent *ad valorem*. B. B. W.]

² [And by general most-favored-nation treaties, goods from Austria, Russia, Spain, Denmark, Switzerland, Sweden, Norway, received the same treatment as Germany and Belgium. B. B. W.]

denunciation of the treaties, which soon took place. As promised in 1897, a further reduction of the tariff took place the following year, increasing the preference to 25 per cent. As the device had proved a very popular one, and its limited application was now well recognized, the wording of the preference was changed from the general to the particular, and the reduction specifically limited to the British Empire, although important sections, such as Australia, have not yet availed themselves of it.

Thus the Canadian preference on British imports was the outcome of no bargain with the British Government, or of no theories as to the advantages of inter-imperial trade. It expressed no sacrifices on the part of Canada for the benefit of the mother country. It was undertaken entirely in the interests of Canada, and as, under the conditions of the time, the only advisable direction in which to carry out the oft repeated pledges of the Liberal party. Their political opponents strongly criticized the preference on the ground of its being an infringement of the National Policy, and as certain to affect most injuriously the industries of the country. This position has never been given up and is still employed in appeals to the manufacturing interests. But, as soon as it was perceived that the preference was by no means about to accomplish the promised ruin of Canadian industries, the Conservatives shifted their centre of attack, and made a vigorous assault upon the Government for having gratuitously granted to the mother country a valuable concession without exacting any sacrifice in return.

This criticism, it will be observed, proceeded upon two assumptions:

First, that Canada did not undertake to lower the tariff upon British

goods for her own benefit, but had made a distinct sacrifice of her normal interests for the express benefit of Britain;

Second, that Britain would have been willing to alter her whole fiscal system and tax her world supply of food and other raw materials, as a return for the Canadian concession on less than 5 per cent of her trade. Neither of these assumptions was true.

Nevertheless it soon came to suit the tactics of the Liberal party to accept the general interpretation of the preferential tariff, as a sacrifice made by Canada in favor of the mother country. It is represented, however, as a sacrifice prompted by pure generosity, and thus as contrasting with the harsh and ungenerous Conservative policy of an eye for an eye and a tooth for a tooth. Of course the Canadian favor might or might not be met by some equivalent concession on the part of Britain, but as far as Canada is concerned it has been *noblesse oblige*.

Tactically the Liberal position enjoyed an immense advantage over that of its opponents, for, on the one hand, it proved the Liberal party to be more loyal and at the same time magnanimous, than the Conservatives, towards the mother country. And this had a fine local flavor, since the Conservatives had always attempted to pose as the party of loyalty, par excellence, and had affected a more or less pharisaical attitude of suspicion towards the implied republican tendencies of the Liberals. On the other hand, while exacting nothing from Britain, the Liberal Government might gracefully decline to concede further preferences until Britain had returned the compliment. Moreover, without the embarrassing necessity of breaking any bargain, or receding from any agree-

ments, the Government may modify or withdraw any part of the preference, wherever it has a tendency to stimulate unduly the importation of British goods. This was actually accomplished in 1904 in the case of textiles.

THE RESULTS OF CANADA'S PREFERENTIAL TARIFF

And now as to the influence of the preferential tariff in stimulating imports from Britain or from the rest of the Empire. As the adoption of the preference happened to coincide with the beginning of a period of economic expansion throughout America, increasing prosperity accompanied its career and led to its being well received.

tion; and even when, in 1900, the preference was increased to 33½ per cent, no appreciable difference was noted. Canadian imports all round have greatly increased during the preferential period and British imports among the rest. But the significant fact is that, in spite of the preference, British imports have failed to increase at anything like the same ratio as those from foreign countries, as the following table will show. Taking the values of goods entered for home consumption from the leading countries of the world, and also the total imports, and comparing the year 1896, which was the year before the introduction of the preference, with the years 1903 and 1914, we have the following results:

VALUE OF GOODS ENTERED FOR HOME CONSUMPTION
(In thousands of dollars)

FROM	1896	1903	1914	PERCENTAGE OF INCREASE OVER 1896	
				1903	1914
Great Britain	\$32,980	\$58,897	\$132,071	78	300
United States	58,574	137,605	410,786	135	601
France	2,811	6,580	14,277	134	408
Germany	5,931	12,283	14,586*	107	146*
Spain	362	824	1,352	128	273
Portugal	47	129	277	178	489
Italy	231	542	2,090	135	805
Holland	300	1,271	3,015	324	905
Belgium	921	2,800	4,490	200	388
Newfoundland	551	1,198	1,841	117	234
West Indies	1,896	2,379	4,347	25	129
Switzerland	332	945	4,315	182	1,200
Total	\$110,587	\$233,791	\$619,194	111	400

* The small increase of Germany's trade reflects the tariff war between Germany and Canada in the years 1903-1910. German goods came as Dutch or Swiss products as reflected in these returns.

But it by no means had the effect anticipated by either friends or foes. Except in the textile trade and some sections of the metal industries, the preferential treatment of British goods did not specially stimulate importa-

tion. That the preference has not arrested the downward tendency of the share of Britain and the rest of the Empire in Canada's imports is further shown when we compare the percentages from 1883 to 1923:

PERCENTAGE OF CANADIAN IMPORTS OBTAINED

FROM	1888	1893	1903	1914*	1923*
Great Britain.....	42.3	35.5	25.2	21.3	17.6
The British Empire.....	45.3	37.8	27.8	25.0	22.4
Foreign countries.....	54.7	62.3	72.2	75.0	77.6

* Fiscal years ending March 31 of year named. Percentages based on figures in Report of Department of Trade, 1922, and in Monthly Report on the Trade of Canada, March, 1923.

Taking the percentage of the total Canadian imports obtained from Great Britain and the United States respectively, in 1896, 1903 and 1922, and also the proportion of duty paid on British and American imports, we have the following:

WHAT THESE FIGURES INDICATE

We Canadians obtain from Great Britain mainly manufactured goods. Such raw materials as she sends us are, as a rule, not her own product. To increase considerably the importation

	PERCENTAGES OF TOTAL CANADIAN IMPORTS		PERCENTAGES OF TOTAL DUTY COLLECTED	
	From Great Britain	From United States	On British Imports	On American Imports
1896.....	29.8	52.9	36.4	38.4
1903.....	25.2	58.9	26.5	46.0
1922.....	15.7	69.0	19.5	59.5

From this we learn that whereas between 1896 and 1922 the percentage of British imports has declined from 30 to 16, the percentage of American imports has increased from 53 to 69. But on the 16 per cent of British imports in the fiscal year 1922, notwithstanding the preference, 20 per cent of the whole revenue was collected, while on the 69 per cent of American imports only 60 per cent of the total revenue was collected. The present relative positions of the United States and Great Britain in the total trade of Canada and the bearing of the duties collected are shown in the following statement, taken from the latest returns giving the information as to duties: (See page 226.)

of British manufactured goods, beyond what we have always taken because we needed them or because we could not produce them ourselves, would involve cutting in upon our own manufactures, as in the case of the textile and metal industries, where under the preference the chief increase in British imports has been secured. Now our Canadian manufacturers strenuously object to sacrificing any part of the home market to competitors in Britain, and that they are quite capable of making their objections felt is evident from the partial repeal of the preference in 1904. Once assure them adequate protection, however (and Americans will quite understand what that signifies), and they

IMPORTS FOR CONSUMPTION, FISCAL YEAR 1922

(In thousands of dollars)

FROM	DUTIABLE	FREE	TOTAL	DUTY COLLECTED	AVERAGE RATE	
					On Dutiable Imports	On Total Imports
Great Britain	\$95,139	21,996	117,135	23,585	24.8%*	20.1%
United States	312,093	203,864	515,958	71,864	23.0	13.9

EXPORTS OF CANADIAN PRODUCE

(In thousands of dollars)

To Great Britain	\$299,361	Excess of Exports	\$182,220
To United States	292,588	Excess of Imports	223,300

* [The higher rate of duty collected upon dutiable imports from the United Kingdom may be ascribed wholly to the two facts that Canada imports (as she has long imported) great quantities of alcoholic beverages from Great Britain and very small quantities from the United States; and secondly, that the Canadian duty upon these beverages is much above the average height of her duties. Of the total duty levied by Canada in 1922 upon imports from Great Britain, \$7,300,000, or nearly one third of the whole was collected upon alcoholic beverages valued at \$19,104,000. Omitting alcoholic beverages the average duty on dutiable British products becomes 21.4 per cent, or 1.6 per cent less than the average levied on American dutiable products.]

Alcoholic liquors may be regarded as an extreme illustration of the general tendency for Canada to obtain from Great Britain a larger proportion of finished articles, dutiable (in spite of preferences) at substantial rates, and from the United States a larger proportion of partly finished articles dutiable at moderate rates. If the imports from the two countries were composed of similar articles, the difference in the average rates of duty could hardly be less than 10 per cent, in view of the preferences accorded to British products. B. B. W.]

have no serious objection to taking as much further protection against the world beyond the Empire as the Canadian people may be willing to grant them, under the impression that thereby they are affording a preference on British imports. And if, in return for such a preference, the British public can be persuaded to place a duty upon those articles of food and raw material which we send them, when they come from beyond the Empire, the manufacturers will hold up both hands for it, since it may have a tendency to increase the number of settlers in Canada to become customers for their goods. In other words, if Britain will send us

settlers and take their produce under a preference, our manufacturers will gladly supply the wants of the settlers for manufactured goods. It is only fair, however, to many of our more straightforward manufacturers to say that they regard such proposals in their proper light. Having too much respect, alike for themselves and their fellow citizens in Britain, they frankly declare that in their view adequate protection to Canadian industry means the virtual abolition of any real preference to Britain.

But Mr. Chamberlain himself, before he started out in 1903 on his strategic detour with a view to outflanking the

colonies, was fully alive to the significance of a preference which involved as a basis adequate protection for the colonial manufacturer. Thus, in his address to the colonial premiers at the Imperial Conference of 1902 in London, having the Canadian preference in his eye, he said:

But, so long as a preferential tariff, even a munificent preference, is still sufficiently protective to exclude us altogether, or nearly so, from your markets, it is no satisfaction to us that you have imposed even greater disability upon the same goods if they come from foreign markets, especially if the articles in which the foreigners are interested come in under more favorable conditions.

And, with special reference to Canada:

In spite of the preference which Canada has given us, her tariff has pressed and still presses with the greatest severity upon her best customer and has favored the foreigner, who is constantly doing his best to shut out her goods.

Now this position, in the light of recent movements and discussions on the part of the Canadian manufactur-

ers, is more valid today than it was twenty years ago.

But, say some, when cornered on this point, let Britain supply the goods now furnished to Canada by other countries, such as the United States, Germany, France, etc., and the preference will surely aid her in doing so. The reply to this is twofold. In the first place, if the present preference of one third on normal lines of dutiable goods has not enabled Britain even to hold her own with foreign countries, she will have still less chance of doing so should the tariff be altered to her disadvantage. For one of the chief objects of recent proposals, as was the case in the reduction of the preference on textiles, is to reduce her command of those lines in which she now has an advantage in the Canadian market. In the second place, a detailed study of Canadian trade with Britain and her leading foreign competitors, especially the United States, reveals the true reason why neither the present preference nor any other that is at all within the range of practical politics can greatly increase the proportion of British goods imported into Canada.

IMPORT AND EXPORT TRADE OF CANADA WITH THE BRITISH EMPIRE, GREAT BRITAIN AND THE UNITED STATES WITH RELATIVE PERCENTAGES

(Year ended March 31, 1923)

(In millions of dollars)

	1921	%	1922	%	1923	%
Total imports for consumption	\$1,240.1	....	\$747.8	....	\$802.4	....
From British Empire (including Great Britain) . .	266.0	21.0	149.1	20.0	179.5	22.0
Great Britain	214.9	18.8	117.1	16.0	141.2	17.6
United States	856.1	69.0	516.0	69.0	541.0	67.4
Total exports Canadian products	\$1,189.1	....	740.2	....	931.4	....
To British Empire (including Great Britain)	403.4	34.0	345.8	46.7	439.6	47.2
Great Britain	312.8	28.0	299.3	40.4	379.0	40.7
United States	542.3	45.6	292.5	39.5	369.0	39.6

Two thirds (1923) of Canada's imports come from the United States, and when we examine them more closely (*see* tables at end of article) we find the great majority to be made up of such goods as coal, raw cotton and cotton fabrics, petroleum, automobiles, fruits, chemicals, electrical apparatus, machinery, hides and leather, silk, meats, books, etc., farm implements, paper and corn. Two fifths (1922) of the American imports are free goods, many of them, in consequence, going to swell the volume of our exports to Britain. Of the dutiable goods a very large proportion consists of materials, implements and articles which are really not produced in Britain, or not in such forms as are at all suited to Canadian needs.³

³[While it is undoubtedly true that a very considerable proportion of American exports to Canada consists of articles which Great Britain cannot supply, one may well feel that Dr. Shortt overestimates this factor, and overstates the degree to which Canadian industry is protected against British rather than American products. As he brings out in the next paragraph, Canadians and Americans "use the same implements, machines, means of transportation, styles, materials and details of building, together with all their interior fittings." Hence, Canadian manufacturers are interested in protection against the American products rather than British products.

The facts seem to be that protection does not exclude every kind of manufactured products either British or American; that American and British goods are not wholly non-competitive and that an examination of the trade figures, not confined to gross totals but particularized to an examination of specific commodities in which competition existed between British and American manufacturers in the early nineties, shows that the Canadian preferential tariff has driven out certain lines of American manufactures from the Canadian market. The gross figures show, however, that the lines in which this has occurred are of small importance compared to the total trade.

That the Canadian preferential tariff has produced measurable effects upon Canadian trade may seem to be supported by the fact that, for some years prior to the introduction of the preferential tariff, the value of Canadian imports from the United Kingdom had been decreasing

Canadians and Americans live under similar conditions on this continent, have practically the same fashions, habits, standards and methods of life and work. They use the same implements, machines, means of transportation, styles, materials and details of buildings, together with all their interior fittings. Hence, outside of those lines in which Britain already holds most of our trade, when we do not use Canadian, we desire American goods. When we examine our German, French and other imports, we find that a large proportion of them represent other phases of specialized trade, which could not be shifted by preferential arrangement other than of the most drastic character. In the case of raw materials and goods of large bulk, where national, technical, aesthetic and other such qualities do not count, the trade can be shifted by preferential treatment, but these are either not furnished by Britain or she enjoys the trade already. Thus, so far as the preference has stimulated imports, it has been chiefly at the expense of the Canadian manufacturers who live by the tariff and suffer from its reduction. Unless, therefore, we sacrifice to Britain bodily those industries in which her goods are capable

absolutely, as well as relatively; but after the introduction of the preferential, the absolute value of these imports increased markedly. But this line of reasoning from the trade totals is probably fallacious. From the seventies to the end of the nineties, prices were falling and British exports of manufactures, in terms of money, were practically stationary; from about the time of the introduction of the Canadian preferential tariff until the outbreak of the war, prices were rising and British exports rapidly increased in value—in fact the British were very little behind the Germans in the percentage of their trade expansion in the years 1899-1914. In these conditions the increase of British exports to Canada after 1898 can hardly be used alone to demonstrate the effectiveness of Canada's preferential tariff in increasing British trade. B. B. W.]

of supplying our markets, there is little else that we can put in her way by fiscal arrangement. This, then, is the chief explanation of the unfavorable statistics connected with the preference.

On the side of Canadian exports to Britain, we certainly have nothing of which to complain, for we find in Britain our most natural and most accessible market; and until the war Britain was our largest market. She still takes over 40 per cent of our total exports, and that without any sacrifice on her part, but simply because she finds it profitable to do so. Apart from cereal foods, however, the United States has become and is likely to remain the chief importer of Canadian raw or slightly manufactured products. In 1921 and again in the year ending July, 1923, the United States has been Canada's best customer, in spite of the tariff in force during most of this year. The increased trade with the United States is due largely to the development of our pulp and paper industry.⁴

Figures for a period of years show that the trade of Canada tends to confine itself more and more largely to Great Britain and the United States. (See Appendix to this paper.) In 1923, they furnished 85 per cent of her imports and took 80 per cent of her exports. The most important item of

trade with other countries is the import of sugar from Cuba and other West Indian regions, amounting to 37 per cent of the total imports not received from Britain and the United States. There remains then only 9 per cent to be supplied by all other countries. The future of Canada therefore lies with Great Britain and the United States, depending upon their prosperity and their trade policies.

This review of the origin of the Canadian preferential tariff shows that the policy was wholly of domestic origin and that it was in no sense an arrangement within the Empire. It resulted from the necessities of the local political situation in most unusual circumstances. The results of the preferential tariff have not been altogether negligible, but, viewing Canada's trade as a whole, the results are entirely overshadowed by a number of other factors which almost inevitably cause Canadians to buy an increasing proportion of imported manufactures from the United States.

APPENDIX

A. CHIEF IMPORTS INTO CANADA FROM GREAT BRITAIN

(Year ended March 31, 1923)

(In millions of dollars)

Textiles:	
Woolen	\$37.7
Cotton	17.8
Flax, hemp and jute	5.1
Silk	2.2
Mixed	5.6
Total	\$68.7
Distilled beverages	17.5
Iron and steel products	12.6
Coal	5.7
Chemicals, etc.	3.6
Clay products	3.3
Table ware	2.2
Tea	2.8
Rubber goods	1.6
Books and printed matter ..	1.5

⁴A memorandum prepared for use at the Imperial Economic Conference states (*Manchester Guardian Commercial* of September 13, 1923):

"So far as Canada's development in the past has been stimulated by external trade, the stimulus has been due mainly to Empire buying, but also largely to United States buying. The effect of Empire buying has been chiefly reflected in Canada's huge development of her farm lands, while the impetus to the development of Canada's forests, fisheries, and minerals has been due much more to United States buying than to any other factor. Thus the Empire and United States' markets are both immensely important, and furthermore are complementary from the standpoint of meeting Canada's needs."

Household and personal equipment.....	1.5
Settlers' effects.....	1.0

B. CANADA'S CHIEF IMPORTS FROM THE UNITED STATES

(Year ended March 31, 1923)

(In millions of dollars)

Iron, steel and products:	
Automobiles and parts..	\$27.5
Farm implements.....	8.3
Total.....	\$124.3
Textiles:	
Cotton, raw.....	28.3
Cotton fabrics.....	19.4
Silk.....	8.5
Woolen.....	4.0
Flax, hemp and jute....	2.6
Mixed textiles.....	8.0
Total.....	71.1
Coal.....	66.3
Non-ferrous metals and products:	
Electrical apparatus....	10.3
Copper and products....	6.1
Brass and products....	3.4
Aluminum and products..	2.6
Nickel and products.....	1.7
Ores.....	1.1
Total.....	31.7
Petroleum and products..	29.3
Fruits:	
Fresh.....	16.1
Dried.....	6.2
Prepared.....	1.0
Total.....	23.4
Chemicals and allied products:	
.....	18.3
Meats.....	8.9
Hides and leather:	
Hides and skins.....	3.7
Leather and products....	4.7
Total.....	8.5
Books and printed matter	8.5
Paper.....	7.1
Corn.....	7.6
Rubber and products.....	6.8
Fur skins.....	5.8
Settlers' effects.....	4.9
Tobacco.....	4.9
Oils, vegetable (not food)..	4.6

Binder twine.....	4.8
Sugar.....	4.0
Vegetables.....	3.8
Household and personal equipment.....	
.....	3.7
Stone and products.....	3.4
Glass and glassware.....	3.1
Clay and products.....	2.8
Oils, fats, etc. (animal)...	2.8
Amusements:	
Picture films.....	1.5
Toys.....	.9
Total.....	2.6
Scientific and educational goods.....	
.....	2.4
Musical instruments.....	2.2
Animals (live).....	2.2
Seeds.....	2.0

C. CANADA'S CHIEF EXPORTS TO GREAT BRITAIN

(Year ended March 31, 1923)

(In millions of dollars)

Grains:	
Wheat.....	\$192.0
Oats.....	10.1
Barley.....	7.4
Rye.....	5.6
Total.....	\$215.4
Milled products:	
Flour.....	27.1
Total.....	28.6
Milk and products:	
Cheese.....	19.4
Butter.....	6.4
Condensed milk.....	.9
Total.....	26.8
Meats.....	23.5
Iron and products:	
Automobiles.....	9.6
Total.....	11.5
Wood, unmanufactured....	11.5
Wood, manufactured:	
Wood pulp.....	4.6
Total.....	5.3
Fruits, fresh and dried....	6.6
Furs.....	4.7
Fish.....	3.6
Canned.....	3.5
Cattle.....	2.8
Paper.....	2.8

Precious metals.....	2.7	Dried and salt.....	2.7
Nickel and products.....	2.6	Canned.....	1.6
Chemicals, etc.....	1.9	Precious metals.....	12.4
Rubber and products.....	1.5	Furs.....	11.3
Eggs.....	1.2	Iron and products.....	9.4
Copper and products.....	1.2	Farm implements.....	1.3
D. CANADA'S CHIEF EXPORTS TO THE		Chemicals.....	7.9
UNITED STATES		Hides and skins.....	7.2
(Year ended March 31, 1923)		Seeds.....	6.8
(In millions of dollars)		Settlers' effects.....	6.6
Wood, unmanufactured....	\$84.9	Copper and products.....	6.1
Pulp wood.....	\$10.7	Milled products.....	5.8
Wood, manufactured.....	35.9	Flour.....	3.8
Wood pulp.....	35.2	Milk and products.....	5.8
Paper.....	70.0	Cattle.....	5.6
Grain.....	20.9	Nickel and products.....	5.1
Wheat.....	18.8	Fibres and textiles.....	4.4
Non-metallic minerals....	20.8	Meats.....	4.0
Coal and products.....	10.1	Leather and products.....	3.4
Asbestos.....	5.2	Beverages, alcoholic.....	3.1
Fish.....	13.0	Scientific and educational	
Fresh.....	8.5	goods.....	2.2
		Aluminum and products....	2.0

Canada's Policy Respecting Pulp Wood

By ADAM SHORTT
Ottawa

THE Canadian regulations may be regarded both as measures to regulate commerce, and as measures of conservation.

The measures in force do not prevent the exportation of very considerable amounts of pulp wood; in fact about one third of the whole product is exported in this form. In 1919 the export of pulp wood from Canada was 1,070,000 cords valued at \$10,600,000 and in 1920 1,247,000 cords valued at \$15,800,000.¹ Ninety-nine and three-quarters per cent of the total export went to the United States.

¹ The figures in this paper are taken from the Census of Industry, 1920, published by the Canadian Bureau of Statistics in 1922. Dr. Shortt believes these figures to be more accurate than those of the Canadian Trade Reports. The figures have been quoted only to the nearest hundred thousand.

Of the values exported in 1919 and 1920, \$6,600,000 and \$10,200,000, respectively, were from the province of Quebec. Quebec is, therefore, the province which is chiefly affected, as it contributes nearly two thirds of the total export. And it is in Quebec that the aspect of conservation comes in most clearly. The small farmers apply for farms in the districts where there are ungranted crown lands, ostensibly for the purpose of settling upon them and operating them as farms, but really in order to cut the wood. When the wood is cut they abandon the farm and apply for another—picking out one that is most difficult to clear, *i.e.*, one which has the greatest quantity of wood. The province of Quebec has not been successful in stopping this practice, and the empowering act

passed by the Dominion Government in the present year is the result of an effort to obtain the aid of that Government in solving this problem. A special commission has been appointed by the Dominion Government to investigate the whole subject.

The prohibition of the export of pulp wood can solve the problem by compelling the erection of paper mills in Canada. It may be said incidentally that most of the big mills make both pulp and paper, and that a great part of the capital is American capital. The machinery used in these mills is very large, and a mill requires an enormous quantity of wood to maintain its operations. The company, therefore, requires a large grant of land and it cannot afford to jeopardize its capital investment by skinning the neighborhood, thus depriving itself of raw material. So the large companies cut the wood carefully and dispose of the waste in such a manner that disastrous fires will not result, and new growth is encouraged. The terms, upon which the large companies obtain leases of extensive pulp wood areas from the provincial governments involve a prohibition of the export of pulp wood which works both for the conservation of timber resources and for the self-interest of each province.

The United States wasted its re-

sources and therefore is dependent upon the preservation—accidental preservation—of the resources of Canada. The permanent interests of the United States require that the Canadian resources be conserved.

The industry in Canada is capitalized at \$347,500,000. The export in 1920 was \$15,800,000 in the form of pulp wood, \$76,400,000 in the form of pulp, and \$86,700,000 in the form of paper. Practically all of the wood went to the United States, four fifths of the pulp, and three quarters of the paper. Australia and New Zealand purchased paper in 1920 to the value of \$5,200,000, and the remainder was distributed in smaller amounts to other countries.

The restrictions upon the export of wood are essentially a matter of provincial policy. The restrictions take the form of a contract that the wood shall not be exported as wood. This contractual restriction applies quite as much against any other Canadian province as against foreign states.

The export of pulp wood under existing circumstances is destructive of Canadian resources, whereas capital invested upon the spot and having an immense stake in the country operated to conserve the resources of pulp wood and to make the business a permanent one.

British Dominions and the Open Door¹

By PHILIP KERR

Sometime Secretary to Lloyd George

MR. CULBERTSON remarked that the British Dominions were continually escaping from difficulties by the double life which they led. If one suggested that, from an international point of view, it was desirable

¹Synopsis prepared by the Secretary of the Conference and corrected by Mr. Kerr.

to maintain the open door in dependencies and to have no differential duties, the Canadians would reply that Canada was not a dependency, but an independent nation; and if one then called their attention to the undesirability of a policy by which one nation makes invidious discrimina-

tions between other friendly powers, the Canadians would reply that Canada was not an independent nation but a British colony. Mr. Culbertson, therefore, in calling upon Mr. Philip Kerr, asked, "What are the Dominions, anyway?"

Mr. Kerr gave no answer to the question. As a resident of the United Kingdom he could not venture to speak for the Dominions in any way. It would be as dangerous as for one member of a family connection to talk about other members thereof. The Dominions and Great Britain undoubtedly belong to the same family; they get together on the occasion of a birth, death or marriage; but it would not do for a resident of the British Isles to dogmatize about the status of the Dominions upon which the inhabitants of the Dominions could so well speak for themselves.

He had been thinking of the expression: "Mesopotamia—that blessed word." He thought there were many other devastating words. Self-determination was one of these. It had had a great influence on recent history since President Wilson first projected it into European politics. But if it were allowed to dominate other words and ideas it was capable of causing much trouble. Imperialism was another such word. It seemed to connote in this country everything that is evil and malignant. He did not deny that there were evil characteristics connected with it; but the use of it affected him as it did when he heard members of the labor party speaking about capitalism. Capitalism had admitted evils. But capitalism was a sound and valuable system of production when properly carried on. Similarly, great as the evils connected with imperialism were, it was a great world force. It represented the attempt to bring order and government in back-

ward areas where chaos or the disorders created by modern civilization reigned. The United States was one of the great imperial powers; the whole history of the United States was one of imperial expansion. But he could not admit that imperialism was a collective name for the seven deadly sins.

The open door was another "blessed word." He believed that it contained a progressive idea of great importance, and should be widely applied. He did not believe, however, that it was applicable to voluntary preferences which were in no sense imposed as part of an imperialistic exploitation of dependencies. It was necessary to see what lay at the bottom of these preferences. The preferential tariffs of the British Dominions were in no sense an emanation of Britain's imperial impulse. The movement began in Canada and both there and elsewhere the preferential tariff was of local origin, enacted by the local legislators, and without bargain or contract of any sort by the mother country. In all of the Dominions, the present preferential systems antedated by many years Great Britain's grant of a preference to the other parts of the Empire, which did not take place until 1919. The Dominions could at any time withdraw the preference without fear that anyone in the mother country would challenge their right to do so.

Mr. Kerr minimized the practical importance of the British preference, saying that it affected—outside of certain "colonial products" mentioned by Mr. Culbertson—almost nothing aside from Canadian-built automobiles. But these automobiles were really made by American branch factories situated in Canada. The United Kingdom was full of automobiles with American names, but under the name there was a small plate bearing the words "Made in Canada."

The British Empire in Mr. Kerr's opinion has kept its record fairly clear in the matter of the open door in the non-self-governing dependencies which it controlled, except for a temporary aberration during the war.

The danger from an international point of view lies rather in the countries which are at least nominally independent, but which are weak. One or another nation may seek to obtain exclusive control over such regions. In these regions the open door should

be enforced by the common action. The problem was complicated by the world wide monopolies affecting different commodities. Because of these monopolies and other differences between the situations in different countries, it would be necessary in enforcing the open door to study each case as a separate problem and to modify in a hundred different ways the regulations and machinery to be provided in order to make the plan a practical one.

The Movement of Raw Materials and Foodstuffs in International Commerce and Its Relation to Shipping

By R. T. MERRILL

Director, Bureau of Research, U. S. Shipping Board

IT is difficult to conceive a subject more far-reaching than that embraced under the heading: "Movement of Raw Materials and Foodstuffs in International Commerce." A discussion of this subject would reach the foundations of our present civilization, the varying prosperities of the peoples of the world and most political actions by those peoples for the last two centuries.

In the modern civilization three things are required to support our industrial activities: power to operate machinery; material to fabricate with machinery; and labor to supplement and control that machinery. Of the three, labor is the most fluid and material the next. Power, in the shape of fuel, is required in such quantities that its presence practically dictates the location of industrial establishments. Where there are great factories, there will be congested population, for only by the output of intensively operated machinery can a dense population support itself in comfort. To such ma-

chinery must be brought the necessary raw materials to work with and from it must be carried the finished or semi-finished product. At the same time, in order to feed the masses of humanity which gather about an industrial region, foodstuffs must be imported from those localities where land is cheap and can be employed pastorally. We may, therefore, begin this most elementary survey by observing the distribution of population in the world, for a densely settled region is usually, although not always, a region which must import foodstuffs and raw materials, and export manufactured articles and surplus fuel.

There are three general regions in the world where the density of population exceeds two hundred persons to the square mile. These regions are Northwestern Europe, Northeastern United States and Eastern Asia. Only the first two have populations whose standard of living is high; Eastern Asia, and to a large extent British India, while densely settled, are not entirely

comparable because their populations are inured to an existence of the very scantiest.

Where Caucasian peoples import foodstuffs the first need is for grains: wheat, corn, rye, oats and barley. The great sources of breadstuffs are the central basin of North America, the plains of Argentina and to a lesser degree Australia, southern Russia, and the basin of the lower Danube. At present, of course, the Ukraine is exporting no grain, and not a normal amount moves from the Danube. The American crop is more and more consumed by our own rising population, leaving England and the Continent to be supplied by Canada and the Argentine. In the case of the Asiatic races, the demand is for rice and the excess consumption of China and Japan is ordinarily met by drawing on the Burmese fields.

After grain comes the demand for meats. The great livestock countries of the world are the Argentine, whose special product is beef; Australia, which particularly exports muttons; and the United States which, while raising cattle and sheep, has an exportable surplus only of pork products. The British Isles, which are entirely dependent upon imports of meats, therefore draw their mutton from Australia, their beef from the Argentine and their pork and, to some extent, dairy products from the United States. Continental nations are no such races of meat eaters as are the American and British and this fact, combined with the intensive agriculture which they practice upon their tiny farms, makes for a limited demand on their part for meats. The Asiatic, of course, has a very low per capita consumption of meat.

The third essential foodstuff is sugar, which may be either cane or beet. The Southern United States

raises both in large quantities; Central Europe produces beet sugar, while Cuba, Java and Hawaii are the sources of the cane product. The greater part of the Cuban crop is required to supplement the domestic output of the United States, while the Javan crop moves to Europe.

Of the foodstuffs which are used for decoctions the three of importance are coffee, tea and cocoa. The primary source of coffee is Brazil, with Colombia and Central America of importance. This product moves to the United States and to Europe. Tea is grown in Eastern Asia and in southern India and the surplus is similarly exported to the great consuming centers in Europe and the United States. Cocoa is the product of West Africa, the Caribbean countries, and Ecuador, and from the shipping standpoint is much less important than either coffee or tea. The great drink of South America, yerba mate, has almost no distribution outside of the immediate vicinity of its origin.

The great citrous fruit centers are southern California, Florida and the Mediterranean. The banana imports into the United States from the West Indies approximate a million tons a year and besides this considerable quantities are shipped to Europe. The apples of the Northwest are moved across the Continent in quantity, and to a certain extent to Europe by ship. Coconuts are gathered in the West Indies, in Ceylon, in the Philippines and in the islands of the South Seas and are imported either whole or shredded, or dried into copra, which is brought in in that form or as oil. Other than these, most fruit movements are so small as to be negligible.

BASIC RAW MATERIALS

Turning now from foodstuffs we may take up the basic raw materials. It must be borne in mind that in dis-

cussing raw materials from the shipping standpoint we pass over many commodities which are strategic or "key" materials in that their possession or acquisition in sufficient quantity is an essential to the industry of a country. We do this because the quantity of such material moved is, in terms of shipping, too slight to be of interest, no matter how essential such an article may be.

The foremost raw material is coal, the world's chief source of energy or its equivalent, heat. The great sources of bituminous coal that have been developed so far are the eastern part of North America, the northwestern part of Europe, northwestern India, South Africa, south Australia and east central China. Possibly the greatest of these, yet the least developed, is China. The low volatile coals of Wales and of the United States are especially good steaming coals and hence are in great demand for ship fuel. Continental coals and the high volatile coals of the United States and of England are better adapted for coking purposes and hence for industrial use. The coals of India, Africa and Australia are of poorer grades.

Raw materials which are consumed by industrial regions would include, naturally, metallic and especially ferrous ores. Since coal is used in smelting ore in the proportion of two to one or three to two, iron ore usually moves to coal, but for economical production neither should require expensive transport. The great industrial regions of England and of Central Europe, as well as the Alabama district, owe their existence to the close proximity of both coal and iron. Where the Pennsylvania and West Virginia coal fields are used, the ore is brought from the shores of Lake Superior by special and economical vessels. Spain and Sweden both produce an iron ore which, for lack of fuel, is almost entirely exported

to this country, to England and to Germany. But in addition to the common iron ore modern steels require special ores which must frequently be brought long distances, as in the case of manganese ore obtained from British India, Caucasia and Brazil, and chrome ore from the island of New Caledonia. Other ores and concentrates which move in appreciable quantities are copper, tin and aluminum. Mexico and the United States are the chief copper-producing countries; Bolivia and the Straits Settlement supply the tin, while bauxite comes from northern South America.

Of great importance to industry both as a fuel and as a lubricant is petroleum or mineral oil. The United States is a source of supply of approximately two thirds of the world's present output of this essential commodity. Mexico until recently yielded about one fifth of the world's production, but at present her output seems to be diminishing while that of southern California field is increasing. Other sources are Burma and the Dutch East Indies, Galicia and the Caucasus, while developments are being pushed in Mesopotamia and along the northern coast of South America with good prospects of success.

The raw materials of the textile and grass variety are of great importance. Easily first comes cotton, of which the United States produces about 70 per cent of the world's supply and exports two thirds of her output to Continental or British mills. India and Egypt furnish most of the remainder, the Egyptian crop being especially desirable for its long staple. The United States and England divide this crop between them to supplement the short staple American product. As a by-product of the cotton industry there is the oil pressed from the seeds and the seedcake itself.

Wool comes primarily from the great

sheep countries of the southern hemisphere, and moves chiefly to the United Kingdom. The United States consumes all its own wool, and imports as much besides, chiefly from Australia and the Argentine, either directly or via Great Britain.

The jute crop of India furnishes the fibers for gunnysacks and coarse bagging. Gunnies, of course, are essential not only to manufacturing communities but even more so to agricultural regions for the bagging of grain. The raw jute is largely imported into this country via England, although an increasing amount moves directly from India. Mexican sisal is brought up in the crude state to be twisted into binder twine, while the Philippine hemp or manila moves both to this country and to Europe to be made into rope.

Of the chemicals the three which are especially prominent in quantity are nitrate of sodium, the various potash salts and rock or pebble phosphate. Practically the sole natural source of nitrate of sodium is northern Chile. From here between three and four million tons move to the United States and to Germany for use in fertilizers and explosives, and for the extraction of nitric acid and iodine. Central Europe is equally the world's sole source of natural potash deposits and this is exported in one form or another to the eastern seaboard of the United States for working up into fertilizers. The third of the fertilizer ingredients, phosphate, is found in the interior of the United States, but especially in Florida from whence it moves to Continental ports. Deposits of phosphate in North Africa are being developed in conjunction with the post-war control by the French of the Alsatian potash deposits. Another chemical of importance from the shipping standpoint is sulphur, which moves to the North Atlantic coast of the United States and

to Germany either in its crude state from the Texan fields or in the shape of pyrites from southern Spain.

The movement of forest products is of considerable importance. The Pacific Northwest exports quantities of lumber to China and Japan, while from the Gulf region of the United States the long leaf yellow pine moves to the Argentine. England draws its pit-props and sleepers from the Swedish and Russian Baltic forests while the presses both in England and on the Continent are fed with paper made largely from Scandinavian and Finnish wood.

There is an endless list of other raw materials, all of them of importance, many of them essential in modern industry. Rubber would easily be mentioned; silk is of enormous value; essential oils; china clay; hides; log woods; cabinet woods, all go to swell the total of articles which move in modern commerce. But the list is too long and those which I have mentioned are in the main the important items when considered in bulk only.

If it were not for the movement of prodigious quantities of bulky, low-grade raw materials, there would not be afloat today one third of the ships which at present ply the oceans. On the other hand, it might with equal truth be stated that, if it were not for the extremely cheap transportation afforded by the modern cargo vessel, it would be economically impossible to move such quantities of low-grade materials over long distances simply to place them where fuel and labor were cheapest. Without this cheap transportation our present standards of living, depending as they do on the advanced mechanical development of today, would be unattained because of the exorbitant prices which the assembly of the necessary raw materials would entail.

LOW OCEAN FREIGHT RATES

Prior to that mechanical development of the world which we call the "Industrial Revolution," ships were constructed of wood and were propelled by wind. The inherent strength of wood is so limited as to restrict the possible size of wooden vessels to a length not exceeding three hundred feet. In order to attain even this exceptional size, so much timber must be employed in a wooden ship as seriously to reduce its lifting capacity, because of the weight of the hull and its cubical capacity because of the thickness of its sides. Hence even the largest of the old sailing craft could carry but a small amount of cargo, measured by modern standards. Since sailing vessels carried large crews and made comparatively slow passages, the freight rate per ton was such as effectually to prohibit the interchange of commodities other than those whose value was considerable in relation to their bulk.

The development of the iron industry made possible the constructions of ships the limits of whose size are only those imposed by geographical considerations. From the steady improvement of the steam engine there has evolved marine installation both compact and economical. These two developments not only permit larger and faster ships than were those of fifty years ago, but make possible the carrying of a greater amount of cargo per ton of ship than was attainable with the earlier types. The result is that today ocean freight rates are from one fifth to one tenth what they were in the days of wood and sail, and the modern tramp can carry at a profit a ton of freight one mile for a rate that approximates one twentieth of a cent.

In considering shipping in connection with international commerce it must

never be forgotten that ships are for that commerce, merely agents, of relatively insignificant value when compared to the value of goods moved. Shipping is like the tire of an automobile; only noticeable when something goes wrong with it. Under ordinary, unfettered conditions shipping will always keep pace with the demands upon it and inferior service or unreasonable rates will only be possible when the natural law of supply and demand is artificially interfered with.

In the World War shipping and shipyards were commandeered and directed in the furtherance of the war, rather than permitted to keep pace with economic demands, with the result that for neutral cargoes enormous rates were obtained, but this was an exceptional case only possible in the extraordinary circumstances. An ordinary cargo ship can be completed in eighteen months and any increased demand for tonnage will almost always be met in that time. The rush to take advantage of such demand by building new ships creates a surplus of tonnage, and this surplus produces a disproportionate fall in rates. No period of high rates can, therefore, last long if building facilities are available, while every such period is usually followed by a long stretch of extremely depressed freights, due to overbuilding.

Most of the raw materials and many of the foodstuffs which I have touched upon are moved in what are called tramp steamers. That is to say, in ships which are hired by the shipper to perform a specified service for his account. Prior to the war, two thirds of the world's commerce was of the tramp type. In the operation of this character of shipping, the rate charged depends upon the prospect of the round voyage. The shipowner wishes to bring this vessel home again with a profit upon the entire trip. If a ship-

per wishes to charter a vessel, the rate will depend, not so much upon the service performed as upon the destination of the vessel, for upon that hinges the owner's prospect of obtaining a payable homeward cargo.

As an example, one of the main trade routes is that between Great Britain and the Argentine and a common voyage is coal out and grain back. Grain is a seasonal movement. At harvest time, in spite of large storage capacity, freights rise and many ships are attracted to the Plate. The British exporter of coal, knowing this, holds out for and obtains a cheaper freight rate on his coal when the grain rate is high than he does during the off seasons. In other words, the sum of the coal rate and the grain rate is practically a constant, so that the rate for the round voyage is about the same normally at any time of the year.

Because of their seasonal nature, the movements of cereals, of sugar and of fruits largely govern the tramp shipping of the world. In order not to compete against these commodities which must be moved, shippers of other articles, such as coal, nitrate and lumber, watch the market carefully and take up charters when shipping is not required for the other commodities.

Some of the raw materials require, however, special carriage. Petroleum, of course, needs a specially constructed tank steamer; fresh meat must be moved in ships with insulated compartments and artificially lowered temperatures; fruit carriers require special ventilated holds and a good turn of speed. In such cases the carriers are always built to fit the trade and in many cases are owned by the shipper in order to insure himself adequate transportation.

This acquisition of the means of transportation is merely another logical step in that process of vertical integra-

tion which leads the large consumers of raw materials to buy or control for themselves their source of such material. We have, therefore, the examples of all tank steamers being owned by oil companies; of ships specially constructed for carrying bananas being owned by the fruit companies; of ore carriers owned by the steel companies; of the sulphur companies owning their own special ships and some of the coal companies their own colliers.

MERCHANT FLEETS AS INSURANCE

One of the great potential causes of international friction is the fear of exclusion from the source of essential raw materials. If all nations could be adequately guaranteed equal and equitable access to the world's raw materials—which frequently are found in weak and politically undeveloped countries—this fear of foreign development and concessions would cease to exist. Similarly, if it were possible adequately to guarantee to a great importer that he would always be able to obtain the necessary transportation at a reasonable rate, he would not feel it incumbent upon him to acquire a private fleet of vessels for his exclusive use, but would charter on the market instead. Since this is impossible he feels he must secure his costly shore plant and large capital investment against interruption and shutdown by the comparatively slight additional expense of acquiring his own system of transportation.

This is practically the case with nations. Were it possible to guarantee against interruption, it might be feasible to permit specialization in sea-carrying and the monopoly of transportation by that nation which can do it best and cheapest. As long as such interruption and its resultant commercial demoralization cannot be

guaranteed against, each nation whose prosperity is industrial, believes, and wisely, that a reasonable merchant fleet of its own is of economic necessity

and that the additional cost is a very low premium for insurance considering the value of the industry which it protects.

The Effect of Cable and Radio Control on News and Commerce

By ADMIRAL W. L. RODGERS

United States Navy

MY subject is the use of radio in the promotion of commerce. In dealing with this subject I shall do so as a naval officer who, in the ordinary experience of his profession and the exercise of his duties in parts of the world far from the United States and from each other, has been obliged to search for American commercial news and transmit it by radio stations under his own management for the advancement of American commerce against the competition of foreign news agencies, foreign means of communication and foreign business rivalries.

As an example I may mention a case about the middle of 1919. The position of China in the Treaty of Versailles was being handled by the great powers. Each was anxious to stand well in the eyes of the Chinese people without sacrifice of its own interests. The great news agencies had pooled their interests to a considerable extent. Great Britain got its point of view into China by its cable system from Europe. Japan got its point of view presented very readily, but the United States, although owning a cable via Guam, had difficulties in operating, owing to submarine earthquakes, and yet the cable company objected to American news going by naval radio as unfair competition. This cable is British controlled. When I succeeded in having a little news sent that way, the people who sent it gave American gossip of base-

ball, etc., instead of world news for China.

This paper will therefore discuss radio service and radio news both as a commercial article itself and as a commercial agency, and as a political agency at the disposal of the Government for the maintenance and advancement of our own national prosperity in the face of the rivalries of other nations and their national commercial activities.

In time of peace, however, the communication service has many ramifications and is called upon to do considerable outside work which, while not defensive, is a proper function of the Navy. The Navy aims to cultivate friendly and sympathetic relations with other nations. By extending a liberal use of our communication system to the press and business where it does not interfere with commercial companies, the peoples are brought into closer contact and understanding of each other. When interruption occurs in commercial lines, telegraph, cable or radio, the Navy is often in a position to care for the traffic until such break has been repaired. Another important activity of the Navy is to assist mariners.

THE RELATION OF THE NAVY TO RADIO

Other means of communication, whether by speech, by writing or by telegraph and telephone, are more or less private, but radio, broadcasting

whatever is to be transmitted, unless in cipher, is received by all who can listen. For the guidance of shipping at sea it is thus the only means of transmission of news through which they may remain in constant communication. At sea radio sends directional compass signals for ships in fogs. It transmits orders to change routes or destination to ships beyond other means of communication. Not one of the American ships carrying American troops to Europe was lost by German submarines. The German submarines sending radio messages to Berlin revealed their whereabouts, and our shore stations told our ships what areas to avoid. Cables cannot do this, thus radio is essential for navigational purposes in peace and war to the merchant fleet and to combatant navies. For everybody on shore it is an auxiliary only to other means of communication.

In time of war radio is particularly essential to all the operations of war on the sea whether neutral or belligerent operations are involved. Like successful conduct of other business, the successful conduct of war depends on correct information promptly delivered. There is no greater handicap to success than lack of information through either delay or misinformation. As a well-known German military writer said many years ago, "From knowledge to action is always a great leap, but from ignorance to action the leap is a far greater one." As an instance, in our Civil War General Hooker moved his greatly superior army to the battlefield of Chancellorsville in comparative ignorance. General Lee moved his opposing forces with knowledge of the enemy and won the campaign although the risk was great and his leap correspondingly so.

For the reason above assigned, when radio first became practicable, the navies of the world perceived how es-

sential it was to their operations and they have led in its development. The laws of the United States place the control of overseas governmental radio stations in the hands of the Navy. If the Navy ever loses this control of radio stations to the Civil Departments of the Government, it will be hard to get it back in war. Besides, the navigational needs of the Navy are identical with those of other shipping. The Navy through its esprit de corps is therefore best able to force naval radio to be efficient both for itself and for the commercial world.

THE NAVY THE HANDMAID OF COMMERCE

From the beginning of history the navies of the world have been the handmaids of sea-borne commerce. In ancient times, owing to the great difficulties and cost of transportation by land, water transportation, whether by river or by sea, was much cheaper in spite of heavy navigational losses. Maritime insurance rates against all risks together with freight rates were not as high as corresponding rates on shore.

Navies have always been the protection of commerce against violence and reciprocally navies have been obliged to rely on commerce for maintenance in return for the protection. It is a popular error to believe that fleets fight each other with victory in view as an objective. Naval victory is the best means of facilitating subsequent dealing with one's own and with hostile commerce. In wars, whether between individuals or between nations, one may strike at the life of his opponent either by shedding blood or depriving him of the means of support—of livelihood. The object of navies, then, is not so much as the public believes for the defense of the littoral against the enemy's designs thereon as it is to as-

sure the freedom of commerce in one's own behalf and deny it to the enemy. The proposition of denying the freedom of the sea to a national enemy includes the corollary of defending one's coast and adjacent waters against a sea attack. For the enemy's attack by a sea route is only efficient when the enemy line of communication, that is, his line of supply from his home country across seas behind him is maintained intact. If this line is permanently broken the whole attack ultimately fails. Even the victories of Hannibal did not bring him the crowning success of conquest, for Rome never yielded to him a satisfactory line of communication with Carthage. The United States Navy exists by the will of the people to maintain and increase the prosperity, comforts and standards of living of all the citizens through its aid and support to United States foreign- and sea-borne commerce. The American merchant and combatant fleets are complements to each other as contributory to the general welfare contemplated in the Constitution.

THE REASON FOR GREAT NATIONS

I must explain the relation of the foregoing remarks to the subject of radio and commerce. With its vast territory and its varied products both of the mine and of agriculture, the United States is perhaps as near to having a closed and complete cycle of industry including raw production, transportation, manufacture and final consumption in one area as any other country in the world. We could, if such should become the national policy, make the cycle of industry almost complete within the continental limits of the United States with absolute need for very few materials of foreign origin. However, for the greater prosperity and comfort of the people we have no desire to do so, and our cycle of industry be-

tween raw products and final consumption is based on something above 90 per cent of the total commerce of the United States consumed within the United States of the products of the United States and an export and import business of raw materials of less than 10 per cent. All our industries, then, production, transportation and manufacture, are based on a foreign commerce of something less than 10 per cent of the total business of the country. But to preserve the prosperity of the country in peace and a relative prosperity in war we must continue to be able to dispose of a scanty 10 per cent of our total commerce through foreign markets. Just as 10 per cent is little more than a proper margin of safety between due profit and loss in any private business, so in the national business a failure to continue our 10 per cent scant of exports and imports of raw materials will turn prosperity into want.

It is not out of place here to examine a little as to the changes which the advance of the last century in navigation and transportation have made in the national outlook of all countries upon that commerce which the navies of the world exist to defend and promote (for their own national support). In early times, before the introduction of steam machinery the economic margin of safety of the world above the bare cost of living was slight. The cost of transportation plus insurance, both by sea where it was cheaper, and by land where it was dearer, was great. Even today with good roads, horse-drawn freight cannot possibly extend itself more than three or four days' haul. In past times, with bad roads, travel, commerce and the exchange of ideas were very limited; social, economic and political units were therefore small. Consequently closed cycles of industry between production, transportation

and manufacture were small geographically. Only the most expensive and least bulky and weighty articles lent themselves profitably to distant transportation, and therefore since business was small the nations formed by community of business interests were small. The law and the practice of nations, finding the business of the country on a small scale, left its conduct to individual merchants interested on their own behalf. National business was not on a sufficiently large scale to require adjustment otherwise than through the free intercourse and rivalry of individuals. Although it was not infrequent for sovereigns to rule over several territories not closely connected in an economic sense, yet the bond was personal and not a national one.

But with the improved methods of production, transportation and manufacture of the last century and a half, the specialization of industries has been greatly extended territorially and the closed or nearly closed cycles of industry, of commerce and of thought, have become very much larger and thus have developed great nations. Through the consolidation of industries has developed the idea and practice of public utilities which substitutes the business rivalries of great corporations for the business rivalries of individual merchants two centuries ago. Thus nations themselves are forced into the position of great economic units. The world has not yet accommodated itself to the actual situation, as public opinion must always lag behind in the formative stage. Because opinion has not yet accommodated itself to the new conditions which confront the world, governments are not all equally ready to support great business and trade in contest with national competitors. Sound national policy requires that each government must now do no less for its own national business than

other governments do for their own. As a director of one of our greatest corporations said to me over three years ago, "We have all the money we could desire for foreign investment, but without the backing of the administration we cannot compete with foreign capital supported by its (British) Government." The British Government participates in some foreign investments, *e.g.*, the Suez Canal and the Anglo-Persian Oil Company.

We must beware of a solution of such matters by an international pooling of national interests. It seems at first sight a very attractive proposition. But the question of who controls the pool and the access thereto is at the bottom of the matter. If any nation is deprived of her equal opportunity the consequences may be most disastrous to the whole nation. This is particularly so with basic raw products. In the present stage of the world no great nation can permit herself to be threatened by the loss of any great market of raw materials essential to her scheme of industry in peace and war.

THE PRESS AS AN INSTRUMENT OF COMMERCE

As the fastest means for the transmission of information, radio is available to the world as a means of accurate information promptly delivered. The press is a public utility for the distribution of information. If we examine the changes which modern methods of transportation have made effective both as to freight and to news regarded as an article of commerce, we must consider also the changes in the literacy of nations which is responsible at present for democratic government and the extension of its power. The control of the public and of public opinion has in all times been vested in the most intelligent people who talk well and

freely and thus cause their views to be the guide of the public.

In most ancient times the public was controlled by priesthoods using religious and mystical methods to control ignorant public opinion, but people who controlled opinion were the most brilliant minds and best educated of the day and thereby they governed. Later, making a considerable step forward in time, we find in the Middle Ages that the priesthood controlling the means of communication through their literacy became the chief executive officers of sovereigns in their civil capacity of government, and in many cases, under the feudal system, members of the episcopate also exercised military authority in their own persons.

Somewhat later, as the separation of the canon and the civil law became more and more complete, the lawyers as a separate class of highly educated men not belonging to the clergy took a greater and greater share in the government. In this country in the early colonial days in New England the clergy seemed to rule. Later, with increased literacy the lawyers obtained the upper hand in the political government of the country both in the legislature and on the executive side.

It is due to general illiteracy that this country, the United States, until about 1830 was improperly called a democracy. It was rather a landed aristocracy with the franchise based on property qualifications. The leaders, as belonging to a literate class, had developed public opinion of their own class very largely through personal intercourse, by travel and by letter. Public opinion of the multitude, owing to its preoccupation with earning a living and its illiteracy, was formed in its immediate neighborhood by its own landlords.

But with the extension of the franchise, which took place about the

same time under Jackson's administration in this country and Earl Grey's in England, letter writing and personal intercourse being no longer sufficient, the formation of the public opinion of the new democracy passed more and more to the press. The press, therefore, may be regarded from one point of view as a public utility for placing before the people the information which it needs for the intelligent exercise of its powers of self-government. Moreover it is an instrument of commerce.

The reports of foreign exchanges giving the market rates on the products of the world and on the finances of the world and on transportation and on news of political developments are all a part of commerce or conduce to the wise management of commerce. Any distortion or delay in press news is, then, a check to the prosperity of a nation and the individual citizens thereof as well. In short, the daily press and other periodicals less frequent have become the means of publicity by which collective action of the nation is chiefly exercised on subjects which are of national interest.

NEWS AS COMMERCE

We must now consider the press in all its various forms as a profitable investment for the owner. The daily press is the most important of these because it places the first news and so gives the first direction to public opinion. In different countries owing to the different ratios of literates and illiterates, the value of the press varies as a method of forming and directing public opinion.

Let us consider the daily press in this country and other highly literate countries first. The great newspapers depend on their circulation which must be great, and they must sell for a small price. They rely for their income on their advertisements. The copies sold

depend very largely on the amount and variety of news which they are able to provide. Local news of little real importance is an important element in the composition of the best seller. Foreign news of importance is also very desirable, but does not sell the paper unless it is arresting in its quality. Its transmission by cable and by radio is very expensive. Radio and cable news, therefore, can be sent only to countries with dense populations and high degree of literacy. The timely transmission of foreign news to poor and illiterate nations is a more difficult problem for the business manager of any paper so situated to solve. Yet somehow it will get to such countries and papers sooner or later. If the United States wants to get its own news to other countries, it must send it betimes and the United States agencies must send it, and must select suitable news for that purpose, otherwise it will not get, against the competition of foreign agencies and interests, that priority which makes information news.

During the troubles in the Near East our methods of communication with the Admiral at Constantinople was from Annapolis to Paris (radio), leased land line to Coblenz, Germany, thence to Vienna, from Vienna by radio to one of our ships in the Mediterranean, relayed by radio to Constantinople where we have a receiving station at the Embassy and also a station ship. The return message went the same way except that the message at Constantinople originated on our station ship and was on this side received at Bar Harbor and then telegraphed by land line to the Navy Department. During the last two months messages have been copied direct from Annapolis by the station ship at Constantinople; whether this can be done during the bad static season remains to be seen.

Local American news-gossip should

not be permitted to go abroad except to American language papers. The cable tolls are too high, and local crimes and trifles sent abroad give a wrong impression of the United States. Besides, such matters are in plenty abroad as well as in this country.

As has been mentioned, news to be valuable to the buyer must be correct. But the buyer of press news is not the most important patron of the paper. Individually the great advertiser is more important financially. That is to say, the policy of the paper as a dividend payer is largely controlled by the advertising which seeks its columns, and the nature of the news circulated will be affected by the character of the advertising which is available.

In the substitution of the press as a guide to a voting democracy for letter writing to guide and consolidate the opinion of a ruling aristocracy, we must bear in mind that we have shifted formation of opinion from the independent interchange of thought between well-educated people, equal and independent in their means of forming a conclusion, to a press more or less monopolistic in its nature, providing comments from a few monopolistic sources (news agencies) and governed by interests of which the public knows nothing.

The United States differs perhaps somewhat from other modern forms of government, in that its democratic control seems somewhat further advanced because other nations with democratic forms of government perhaps make an upper class rather more prominent in government and in enjoyment of the fruits of national prosperity. I say this with due deference to the representatives of other powers who perhaps do not agree with me. The particular form of democracy of the United States, on the other hand, is based on increasing the

prosperity through the intelligence of the great mass of individual citizens. The whole people of the United States needs information as to foreign matters.

RELIABLE NEWS ESSENTIAL TO DEMOCRACY

All our institutions of government are based on the idea that publicity will correct all evils. But the publicity must not be tainted in transmission, and that is the new problem with which peoples and governments must deal. The problem arises from the increase of literacy going side by side with the increase in franchise. In the small divisions of government such as a town meeting in rural politics or a ward meeting in cities, the subjects are small affairs and the individual voters are personally cognizant of them; the individual voters know what they want and know what they are getting, and they are easily accessible for discussion and argument. Thus free discussion has been safeguarded and the Government in this country has been very loath to interfere or control by any means the press of the country. It was in colonial times that the views of our nation were established on publicity by the overthrow of the Stuart dynasty by the Parliament. The press was then an instrument of the people to overthrow tyranny.

But now, owing to the control of government by the democracy, the tendency today is towards the use of the press by educated people to control the democracy and public opinion and exert the powers of government in the interest of anonymous parties.

The world has learnt a great deal about this matter since the beginning of the World War and we term this formation of public opinion by anonymous parties "propaganda."

Propaganda is right when we know whose voice is speaking and what he

stands for; it is wrong when we do not know whose the voice is or what the ulterior interest behind the voice. Putting aside for the present the control of the press in purely domestic concerns as outside the sphere of government, the same ideas which have led to the establishment of the Interstate Commerce Commission in the interest of the people at large, seem to call for some help to the national press in regard to international affairs as desirable for the same reasons. The public cannot protect itself against false or misleading information or lack of information. It needs help. The immediate question before us now is how such aid may be exerted, bearing in mind that the policy of the United States is to make use of foreign commerce for the greater prosperity of the individual citizens of the republic. How can the citizen be guided wisely in his conduct of foreign affairs?

The government control of the press in any degree has always been open to the suspicion that it was desired for the needs of the administration and of the people temporarily holding administrative power rather than exerting it for the good of the nation at large. However, this is a difficulty which confronts all of us in every relation of life. Namely, are the moral principles of the agent sufficiently high, and his remuneration sufficient for him to be true and loyal to the interest of his principal, or will he prefer his own advantage?

This question gets at the ethics of the profession of the press and also at the ethics of political administration. It is extremely desirable that both should be of the highest. As we find things at present, the news of the world for the greatest advantage of the world must be transmitted truly and with the utmost promptitude. Selfish interests, both individual and national, delay or color news as an instrument of

commerce and of publicity. The national interests, that is to say, the interests and prosperity of the individual voters of the United States taken collectively, require that radio or cable or both should be vested under the supervision of those in whom the people of the United States have confidence. In the present stage of world development national outlooks as to each other are based on business and commercial rivalries. We must no more disarm our national news systems than our war systems. Both are necessary to protect the nation. We do not have full control, or even our share of control, in the cable communications of the world which were established years ago. For instance, the United States laid an American cable across the Pacific. The corporation was American, yet in practical operation the control is understood to be British. There are British directors, British operators, and it is said to be more expeditious for a New Yorker to send his message to a London agent and let the latter send it back as an original London message via our Pacific coast, so to cross to Asia.

THE NECESSITY FOR UNTAINTED NEWS

The stations in the Canal Zone are under our control. An agreement with Panama places the control of all radio in the Canal Zone or in the Republic of Panama under the United States. Correspondence during the last year shows that Panama would like to break away from this treaty and either set up stations of its own or let commercial concessions get a hold. Broadcasting and radiotelephony have accentuated this, and commercial companies desirous of selling their equipment have no doubt been behind some of these activities. In order to gratify their desires and to loosen up a little on our regula-

tions, we have authorized our stations in the Zone to broadcast entertainment programs.

Radio is now coming to the front as a new and rapid way of transmission of political and commercial intelligence. The national interests of the United States, in rivalry with those of other nations, demand that we shall grasp and hold our independent means of communication through radio. For the present moment only we have such a national advantage in the potential development of radio, but other powers are seeking to deprive us of that advantage. As we have no advantage in cables we must by no means sacrifice our radio, but by every means continue to hold what we now so fortunately possess. We are now seeking to hold radio communication with China for the mutual advantage of both countries. But both foreign interests in general and American cables foreign controlled do not much care for such an agreement. It costs much money to put messages for the American press across the Pacific and yet it is very desirable. Can it be done without government help?

The control of the transportation of news—of publicity—as to international affairs and economics is therefore a most important interest of the foreign offices of governments. Every nation's national government must defend it from the assault of news colored by interests not in accord with those of the home country. Equally, a nation not to be essentially a vassal in commerce to other powers, must have at its disposal its own means of promptly thrusting abroad such news as it wishes to circulate. Just what is proper to circulate on its own behalf and to refuse to circulate on behalf of other powers I do not intend here to say, but it is a part of business independence to be able to do both. This is one of

the great new problems arising out of the late war. It calls for great fiducial reliability of operators and managers to the interests of the United States people as well as to the owners of the business.

Our Government and our people must not multiply our international cables and our international radio, unless the control remains American in its direction, and in its management—not merely in its apparent financial ownership.

I do not mean to urge that the Government itself should undertake to be the sole purveyor of news. That would result in overthrow of government by the people. But the Government in the interest of its people must see to it that the channels of news are free, that they are not manipulated nor manipulable either by foreign powers or by special industries, particularly the news-gathering agencies for the benefit of favored parties.

The Naval Communication Service is never a competitor with commercial companies. In the Pacific, the Navy is permitted, under the laws, to handle press dispatches to practically any locality at any rate, provided only that one end of the transaction is connected with American interests to the extent at least of reaching a newspaper published in the United States, or a newspaper published by its citizens. This authority, both press and commercial, expires June 30, 1925.

Practically all news service in the Pacific is handled by the Naval Communication Service, the commercial rates being prohibitive for any satisfactory service. The Associated Press sends on an average daily about 1,000 words from San Francisco to Honolulu and about 800 words to Manila. This service is most satisfactory to the press, and I have heard many complimentary expressions from them about it. The

commercial companies have as much as they can do without handling press messages. The Navy press rate to Honolulu is three cents a word and six cents a word to Manila. The commercial radio rate from San Francisco to Japan is 72 cents a word; for press, 27 cents a word (subject to delay) and \$2.16 a word for "urgent." The cable rates between similar points are 96 cents, 32 cents and \$2.88 respectively. As privately owned radio stations are not permitted to operate in the Philippine Islands, the United States Navy must be depended upon for all radio communication with the Islands.

Still another use for radio may be mentioned. Governments of nations, through their foreign offices, exist for and undertake to promote the prosperity of their nationals through their support of foreign business. It is sufficient to glance almost at random at three or four of the many treaties to see how largely they are filled by matters relating to commerce, to tariffs, to permanent or temporary immigration, to citizenship, to repatriation of naturalized citizens and kindred subjects.

My subject also embraces discussion of raw products as necessary to the support of armies and navies, more particularly navies, when they are exerting their war powers. Among these, seasonal and imported labor as an instrument of commerce conducive to the national prosperity plays a very important part in the policy of a nation. Our commerce and supply of raw products in war munitions may turn on our ability to secure foreign labor. In this country, owing to its great climatic variety, seasonal labor may be to a large extent arranged for within the limits of the United States, but shortage of labor can be relieved only by importation which has been the policy of the nation since colonial days

300 years ago, when we began the importation of negro slaves. The importation of alien labor may be sometimes a most important war measure releasing nationals for service at the front.

This country has always wanted cheap unskilled labor and has advertised payment to immigrants in the form of citizenship and hope of promotion in class from unskilled to skilled labor, from shirt labor class to coat labor class; or, as it is more popularly put, from labor class to manager class. Our country must therefore be able to give its own picture of itself to all possible immigrants,—and to tell them what it wants of them before they decide to come.

As a result of the war we have seen a great change in our national position owing to the shortage of labor. Our unskilled labor has always been short in this country because we have always held before our people the opportunity of rising in the community. Politically we have always preached equality but we have never practiced it. We have always urged people to rise in the world and told every boy to look forward to being President of the United States. When everyone is urged to rise to the highest stations the natural result is a certain discontent in remaining in the lower levels of manual employment. Heretofore we have evaded this difficulty by employing illiterate labor, which, since the cessation of the slave trade in 1808, has been imported white labor. To these illiterates we have held out naturalization and the privilege for their children to rise to the highest positions. Today the class of immigrants and their origin depends largely on what is known of the United States. The country and the Government should by no means fail to supplement other means of information by a proper use of the press and press news

telling of the country's policies and ideals and practical accomplishments.

The public has announced as its own creed that we have vast unoccupied areas which we hold as trustees for the world. We now have something like 5 per cent of the population of the world and something more or less approaching 20 per cent of the areas of the world yet available for occupation and exploitation. But a recent policy urged by organized labor in its own behalf and adopted by the nation has been to restrict immigration and to declare that this unoccupied and undeveloped area of the United States is for the present citizens of the United States, and for their descendants and that no others need apply. We have in consequence our 3 per cent law controlling immigration while the capitalists, seeking by a different route for the prosperity of the nation through that of their stockholders, many of whom are laborers belonging to the unions, wish dividends from cheap labor.

Organized labor also seems to lean to high tariffs, thus reducing the inflow of commodities which other nations wish to supply in return for our raw products. But commerce is essential to us. If we keep out under the immigration laws and under tariff laws both goods and persons who are trying to come into the United States we shall find ourselves under great pressure from abroad. The labor unions as well as many others in the country regard the military forces of the country as a burden which is to be borne not only by labor but by all the interests of the country, including both capital and labor, and they call for the reduction of the armaments of the country.

On the other hand, the policy pursued by labor in refusing ingress of goods and persons against the pressure of other countries to find an export market and to send their people abroad

where they can earn a better livelihood, has a tendency to force other nations into opposition—opposition of policies lead to war. If we are to maintain our policies against rivalries and the economic situation of other nations we can do so only by armaments adequate to preserve ourselves from the development of economic resistance into military attack.

RADIO CONTROL FOR NATIONAL NEWS

Sometimes diplomats can exchange the truth privately and directly with satisfaction to both sides, but sooner or later the public must be informed of the main lines of policy, and governments as responsible agents cannot afford to insult or even to seem to disrespect each other openly. Such offenses lead to war. The truth must become public anonymously. The press is a chief means of so thrusting the information without taking the responsibility of offending foreign governments. But the press is not the only means of propaganda. For instance, during the Civil War Lincoln relied in large measure upon Henry Ward Beecher for influencing British opinion in favor of the North.

At home and within the national territory, and as to internal affairs, governments may speak more freely, but even so anonymity more or less veiled is often desirable. Some other nations are much more expert than we are in manipulating both home opinion and foreign opinion, but our Government must henceforward practice itself not in improper manipulation but in placing its own views frankly and properly before both home and foreign publics in order to fight fire with fire as is done today in our western prairies and forests. The safeguard against abuse of news as commerce is an administration and a press management above suspicion of self-seeking. It

calls for national service in national administration and press management alike from men of the very highest type of character, like the Chevalier Bayard "without fear and above reproach." But Bayard was one man, and in the future, more even than in the past, the whole civil service and the national press as a public utility must strive to lift themselves as one man to that high standard to make democracy more and more of a success. The dividend as the sole standard of efficiency is becoming less and less permissible as time passes.

As such an ideal is approached more nearly, the radio and cable service of the country under national control will become more and more essential to enable the Government to aid the press of this and other countries to get American news as Americans see it, without undue cost. Just as cheap postage, and mail transportation for long distances at financial loss by the Government was accepted as a great political and patriotic gain, so now radio and cable control (not necessarily operation by our Government) is internationally necessary for the national prosperity of the United States in its inevitable economic conflicts with rival business interests of friendly states.

On this point we must further recollect that governments the world over are ultimately ruled by public opinion. That public opinion must be correctly informed. It appears to be the government's business to see that ultimately public opinion is accurately informed. The government having the interests of the whole people must see to it that the nation is not harmed through ignorance and misinformation. The people are occupied chiefly with their daily concerns and their own business for themselves and as between man and man. To the national gov-

ernment of their country they commit as their guardian the protection of their national interests. It is the business of government, then, to be more far-seeing and wiser than the people are from whom they derive their powers. They cannot regard themselves therefore as a mere mouthpiece. They must exercise their powers without too frequent appeals to the people and the people must trust them. This within limits.

It is an interesting historical fact that great matters of international policy in this country cannot be adopted except by consent of the people. As two examples most distant in time, we may take the Jay Treaty with England in 1794 in Washington's second administration. The President and his whole administration were subjects of obloquy for making it. The Senate did not dare to pass it. It was thoroughly debated in the Senate but stalled along until a general election had taken place at which the public was able to review the arguments before the Senate. The new Senate passed the Treaty. Simi-

larly the Treaty of Versailles. It was debated for many days in the Senate in every phase and it also failed of passage by the Congress during which it was negotiated. After its full review the next election decided on its rejection and so far as the United States Government is concerned the Treaty of Versailles is not in existence—another treaty takes its place.

The summary and conclusion of this paper, therefore, is that it is essential to the prosperity of the nation to hold and develop the control of radio and thereby of international news in the interest of national policies and national interests. The pooling of the transmission of news like undue pooling of commerce in other directions is superficially promising, but is not to the ultimate advantage of the United States to join an international pool for news and for its means of transmission unless she manages the pool for the nation at large and not exclusively or even chiefly to the advantage of those engaged in the business of news.

Air as a Raw Material

By WALTER S. ROGERS

Adviser to the American Delegation to the Peace Conference in Paris, 1919

CONSIDERING air as an element, or rather as a mechanical mixture of elements and chemical compounds, I doubt whether there is much to be said about it as raw material, beyond a passing reference to the fact that more and more we are making use of the elements and chemical compounds that occur in the air. For example, we are taking nitrogen from the air for military purposes and also for agricultural purposes. Yet it is doubtful whether man will ever be able to take out of the air sufficient quantities

of any of the elements and compounds to affect its composition, or in any way to influence international political relations. As a matter of fact, of course, nature has been rather generous in providing us with air, although some of us are rather niggardly in our use of it.

Air in motion as a source of mechanical energy raises another set of problems. There are a good many people who think that more and more we are going to be able to utilize the energy created by the movements of the air. Whether this will ever be carried to the

point where air currents will be affected is for the present a matter of pure speculation, or in any event a technical problem which we can leave to the American Academy of Sciences and to kindred organizations.

There are two or three points which I had in mind, however—specific points—when I asked the Chairman of the Round Table about air as raw material. The first relates to aircraft. Another round table has been discussing aircraft at some considerable length. The point I want here to raise I will put rather concretely. Suppose we set up a company for the operation of airplane services for freight and passengers between, say, Boston and New York, and that we find from experience that going in one direction it is advantageous to take a definite route and to fly under normal conditions at approximately a definite height, and that going in the opposite direction it is advantageous to take a little different route and to fly at a little different height, and that in due time these services are developed until there are regular arrivals and regular departures. In a sense we shall then have definite air channels which we are utilizing regularly for our particular services. The question arises whether, having built up such air services, we might not have acquired a property right in the use of such channels. To put the problem differently, suppose a competitor comes along and undertakes to parallel our routes or to cross them at certain places, and this competitor works out his schedules and methods of operation in such ways that they interfere with our operations, or at least render our operations much more hazardous: under such circumstances can we persuade the courts to enjoin the newcomer from interfering with our services, or from rendering our service more hazardous?

If we can succeed in doing so, we by indirection shall have established a property right in particular air channels, a property right which we can capitalize and which we can otherwise commercially exploit. Now this may seem rather absurd, but I am not at all sure that it appears to us any more absurd than the idea of private ownership of land at one time appeared, or that it appears any more absurd to us than our present conception of stocks, bonds and debentures would have appeared if presented as a future possibility to a man living seventy-five or a hundred years ago. What I am trying to do is to call your attention to the possible creation of an entirely new set of property rights. And the same possibility arises in connection with aircraft communication between two countries.

This suggests a further international aircraft problem: namely, the operation of aircraft between two countries involving the passage over an intermediate country. What is, or should be, the relation of such an intermediate country to aircraft passing above its territories? Can it or should it compel such aircraft to land for customs or other purposes? In this connection you may recall that the suggestion has been made that the air above a certain height, to be determined by international agreement, should be considered as an international airway that any one may use, giving the air above the prescribed height a status not essentially dissimilar to that obtaining as to the high seas. In Europe particularly, problems in relation to flight over an intermediate country are serious and of considerable commercial and political importance. As you may know, an international aeronautic convention has been drafted and a number of countries have adhered to it. This country participated in the

negotiations, and the American delegates, in the usual American way, signed with a long list of reservations. The State Department thus far has not submitted the convention to the Senate for ratification.

The use of aircraft leads naturally enough to a discussion of radio, for, among other reasons, aircraft operation involves the use of radio. Obviously, radio is the only means by which a plane in flight can communicate with land. Not quite so obvious, but possibly just as important, is the fact that radio can be operated in such a way as to serve for aircraft the same purposes as the lighthouse serves for shipping. In order to discuss radio here and still keep somewhere near our text, we shall have to define the word "air" broadly enough to include space. Certain problems arise in regard to radio similar to those that arise in regard to aircraft. Suppose we set up a radio company and establish radio communications between here and New York, and in that communication we employ certain wave lengths. Have we by a process of preëmption, as an incident to priority of use, acquired a property right in those particular wave lengths? In other words, if a competing company comes in and undertakes to attempt services employing the same wave lengths, and such services interfere with our services, can we assert a property right which public utility commissions and courts will sustain?

There has been a great deal of discussion on this particular point. The off-hand answer is "no." But there is a possibility that the practical answer—in the absence of legislation providing to the contrary—is that we can establish a property right in wave lengths. If we develop our company so that we are conducting comprehensive services, using practically all of the

available wave lengths, and then a new company comes along, we can persuasively argue to the effect that we have millions of dollars invested, that we render established and necessary services, and that in the public interest no outsider should be allowed to disrupt such services. If public utility commissions and the courts sustain our position, we have acquired for all practical purposes property rights in wave lengths.

The question, of course, also arises in international radio in regard to ownership of wave lengths employed in international radio communications. The problem that confronts the United States particularly in that connection relates to the wave lengths that are suitable for trans-oceanic communication, and the number of wave lengths available for such communication is relatively limited. In truth there is a scramble going on between private companies and between governments for obtaining, or rather for making use of, as many wave lengths as possible, so that when this problem reaches the state of serious international consideration, companies and governments can assert that they have already established basic rights that must be recognized. For example, several years ago the British Government worked out an imperial wireless chain. The underlying idea was the establishment throughout the scattered British Empire of radio stations so located that all parts of the Empire would be given radio intercommunication. There were several reasons for the development of this scheme; one was the feeling that by means of low-rate communication the various parts of the British Empire should be linked together, and particularly that the self-governing Dominions should be in close intercommunication with themselves and with the mother country.

Furthermore, there was a military objective. As you probably know, naval operations are now largely dependent on radio, and the fleet which has the best radio services, the best general electrical communication services, has an enormous advantage over its less fortunate adversaries. The comprehensive imperial wireless system, when worked out, will greatly augment the effectiveness of the British Navy. Without developing the point, and merely leaving it with you, I call your attention to the fact that, when the nations come to control armaments, they will have to deal with radio, because if two countries have fleets of the same size, the country which has the support of comprehensive world-wide radio services can get a great deal more out of its fleet than can the other country less advantageously served.

Just as here in the United States we have not worked out legislation to determine the ownership of wave lengths, so internationally there is no agreement among the powers as to ownership of wave lengths employed in international communication. A conference was held in Washington in the fall of 1920 to deal with international electrical communications generally. One of the serious problems confronting the conference was the question who owns the right to use space for communication purposes. The delegates from the five powers that participated in the conference worked on the theory that the governments together held the ultimate right, and that consequently the governments should allocate the various wave lengths for particular purposes and, as between themselves, for their services.

The leading private radio interests throughout the world opposed this conception. There is no question that certain private radio companies believe that by something analogous to

what we call "Squatters' Rights" they can secure an actual out-and-out ownership of the right to use wave lengths, and they do not want to get the right to use wave lengths through a license from any government or as a result of any international agreement. They want to hold completely the right to the use of wave lengths which they employ in their services. In a certain sense the development of radio has opened up a new domain comparable to the discovery of a hitherto unknown continent. No one can foresee with certitude the possible development of the transmission of energy through space. Really great stakes are being gambled for. And private interests are trying to obtain control of wave lengths and establish private property claims to them precisely as though a new continent were opened up to them and they were securing great tracts of land in outright ownership.

There is considerable international rivalry in regard to the development of radio, as I hinted a moment ago. The radio companies of various great powers are seeking to obtain use of as many wave lengths as possible, and the individual governments are seeking to obtain control of wave lengths for their own purposes and for the use of their nationals. It is quite possible that serious international difficulties will arise out of these efforts to obtain exclusive use of wave lengths.

Both aviation and radio raise the fundamental question whether it is possible by the use of intelligence and foresight for the powers of the world to come to some definite understanding regarding these great instrumentalities, or whether these instrumentalities are going to be allowed to develop with the possibility that serious international difficulties and complications will arise out of efforts to obtain preferential

positions in regard to them. Now I take it that this open conference has been taking a forward look as to what should be done regarding raw materials, so as to prevent international conflicts regarding them, so in conclusion I call your attention to the desirability of international agreements with reference to aviation and radio—agreements that will prevent international controversies, further the use of these instrumentalities, and ensure fair dealing between the various peoples of the world.

Admiral Rodgers: How can radio be better utilized so as to give news of public interest without such exclusive reliance on the public press?

Mr. Rogers: The best approach to that problem with which I am familiar is to be found in the deliberations of the British Imperial Press Conferences. These conferences, participated in by the proprietors of the leading papers of the British Empire, have worked out a proposal looking toward the establishment throughout the British Empire of a press rate of a penny a word between any two points within the British Empire. The cost of transmitting press messages is one of the fundamental factors involved in the dissemination of news throughout the world. With the establishment throughout the world of nominal press rates, an enormous volume of current information and news would flow in every direction. Of course that would be doing in the electrical communication field nothing more than what has already been done in the postal field. However, just as in the postal field, such nominal rate services are only obtainable through public ownership and operation. As a matter of fact,

this is the only country in the world not largely owning and operating its telegraph system, not definitely engaged in one form or another in the conduct of international communication services. Incidentally, the attitude of the United States in this matter makes almost impossible a broad development of international electrical communications on a basis of service.

A rewriting of the definition as to what constitutes press matter would also make a considerable difference. As you know, press messages are carried at much lower rates than ordinary messages. If the existing agreements regarding press rates were extended so that current information might be exchanged at equally low rates between universities and such organizations, much more current information would flow around the world.

There are a number of schemes for getting international information about the world. One of my pet schemes, if I may be permitted to refer to it, is provision for the exchange of current information between the great universities of the world. I have never been able to sell the idea to a college president; yet there is no reason why the members of the faculties of the great universities of the world cannot systematically exchange current information. It would be a simple matter for each of the great universities of the world to arrange each week for some one of its staff to prepare a letter to be mimeographed and mailed to all the other universities of the world. The men preparing such material, of course, would have a background that cannot be expected to be possessed by the hard-working journalist.

The Population of Some Modern States

By ARCHIBALD CARY COOLIDGE

Harvard University

THE seven largest states in the world in 1873 in the order of their areas were:

	POPULATION*	AREA IN SQUARE MILES*
Russia	82,200,000	7,900,000
British Empire	225,000,000	4,650,000
China	300,000,000	4,300,000
United States	38,500,000	3,600,000
Brazil	9,800,000	3,100,000
Turkey	35,350,000	1,800,000
France	43,000,000	900,000

*Rough figures, many of them mere estimates, based with some modifications on the *Statesman's Year-Book* for 1873 and 1923.

The same states in 1923:

	POPULATION	AREA IN SQUARE MILES
British Empire	450,000,000	13,350,000
Russia	150,000,000	8,000,000
France	100,000,000	5,800,000
China	320,000,000	4,300,000
United States	120,000,000	3,750,000
Brazil	30,000,000	3,300,000
Turkey	14,500,000	280,000

Many of the above figures are, of course, open to question. For instance, the Anglo-Egyptian Sudan (1,000,000 square miles), which is included under the British Empire, is claimed by Egypt. The authority of China over Mongolia (1,400,000 square miles) is today less actual than that of Soviet Russia. It will be seen that there have been great changes in the last fifty years. They have been brought about partly by conquest, partly by the natural increase of the population. The two

most striking instances of the latter are the United States and Brazil, which have increased at about an equal rate.

The area of China is about the same now as it was then (not including vassal states). The estimates of population have always varied widely, but there are reasons for thinking that it has grown in the last generation.

The size of Russia differs but little. That is to say that the conquests of the 19th century in Asia have about balanced the losses in Europe in the 20th. But though the area lost was much more densely populated than that conquered, there has been a great increase of population from natural causes.

In the British Empire, in spite of the great increase in the numbers of inhabitants, notably in India, the gain in territory has been proportionately much larger, owing to the annexation of huge, thinly populated regions in Africa.

The most striking case of decline is that of Turkey, but here it should be kept in mind that more than half of this territory (of which the estimate might have been made much larger by adding recent acquisitions in the Sudan) was in Africa and not in reality under Turkish rule.

The next largest dominions in the world today are:

	POPULATION	AREA IN SQUARE MILES
Argentina	9,000,000	1,150,000
Portugal	14,000,000	975,000
Belgium	16,000,000	970,000
Mexico	14,000,000	770,000
Holland	56,000,000	745,000
Peru	10,000,000	720,000
Italy	41,000,000	705,000

Japan, though one of the most powerful states in the world, has an area of only about 260,000 square miles, with a population of 77,000,000.

It is to be noted that the above areas include immense tracts which can never support any very considerable population. For instance, in the case of the British Empire, the deserts in Northern and Southern Africa, the interior of Australia, the northern part of Canada; in that of Russia, the northern part of Russian Siberia; in that of France, the Sahara; in that of China, most of Mongolia, Tibet, eastern Turkestan; in that of the United States, Alaska and the more arid regions of the United States.

In comparing figures of population, the question of quality as well as number has to be considered. The negroes of the interior of Africa cannot be regarded as being equal in economic

value to the same number of citizens of Germany or of Canada. On the other hand, we cannot be sure that the so-called inferior races are not merely backward ones who will some day equal any others. In such matters it is impossible to draw hard and fast lines.

We note at the present day a strong desire on the part of almost all states to be as economically self-sufficing as possible. This feeling has been strengthened by the experiences of the war, but it is evident that such an idea is only attainable by the very largest political units, if by them. On the other hand, we find a growing feeling throughout the world that certain of the fundamental raw materials should be equally accessible to all, no matter under what political jurisdiction they come. These two tendencies are in obvious conflict.

Factors Limiting the Expansion of the Human Race¹

By ROBERT J. McFALL

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DR. McFALL spoke briefly on agriculture as compared with other factors which limit the expansion of the human race. He was careful not to belittle the importance of agriculture, which in 1913 and in 1919 supplied 16½ per cent and 22.8 per cent respectively of the total net income of the United States, and in Great Britain before the war supplied 19.8 per cent of the total net productivity of the country. None the less, he wondered whether there might not be factors which would limit human expansion more narrowly than the agricultural factor. If a ship is fastened to the dock by several cables, the shortest cable determines its maxi-

mum distance from the dock. Is there, so to speak, a shorter cable than the food supply?

Perhaps the timber supply is more limited and its exhaustion will reduce us to great stress. Timber, however, is not a vital necessity.

Power is an absolute necessity. It is produced chiefly from irreplaceable natural resources such as coal, while agriculture depends upon the perennial productivity of nature. Power may easily impose narrower limits than agriculture upon human expansion.

The distribution of food is a limiting factor and apparently constitutes a greater limitation than the production of food. It might be true as a matter of long run theory that agriculture is

¹Synopsis prepared by the Secretary of the Conference and corrected by Dr. McFall.

an industry of diminishing returns, but during the last century agriculture on the whole showed itself an industry of diminishing costs. Three million acres of land went out of cultivation in England which had been profitable before agriculture was extended to new land in other countries. It is by no means clear that this development is at an end. The tropics at present supply only a small amount of food, but they may prove to be great sources as the Prairies did. They are no further removed from the possibilities of food production today than the American West was a hundred years ago. Food prices have in general kept pace downward with the prices of other articles throughout the past century. Food prices now include a greater proportion which represents cost of transportation and other distributive factors. Therefore, distribution is not only playing

a greater part than formerly in the total cost but is tending to overshadow the costs of original production. A comparison of prices of food in Massachusetts and in leading centers outside of New England recently completed by the speaker shows that retail prices were 16 per cent to 17 per cent higher, whereas wholesale prices were only 1 per cent to 2 per cent higher. This also shows the comparative importance of the cost of distribution in this thickly populated region. In conclusion, the speaker stated that, while the Federal and State Departments of Agriculture were conducting marketing research work, other agencies must also undertake the study of the improvement of the distribution of foodstuffs in the interests of the consumers because the agricultural agencies were committed to the interests of the agricultural classes.

Economic Pressure as a Cause of the Revolt of the Asiatic Peoples Against Occidental Exploitation

By CHARLES C. BATCHELDER

Recently Trade Commissioner of the Department of Commerce in India

AT the end of the last century, it seemed as if the whole world would soon be partitioned among the white races, and as if the yellow, brown, and black peoples would hereafter play only a subordinate part in the economic and political development of the human race.

Now, however, the most striking fact in Asia is the determined resistance which the native populations are offering, not only to the political control of the white races, but to the commercial and economic exploitation of the resources of their countries by Occidentals, which has in some cases been going on for centuries, apparently without attracting any attention. In

India and in the Philippines there is a well-organized independence movement, and in India and also in China there is a growing sentiment in favor of expelling all foreigners. This feeling manifested itself in China in the Boxer Rebellion, so called, which was originally designed to overthrow the Manchu Dynasty, but was cleverly diverted by the Dowager Empress into an antforeign movement, which vented the hatred of the Chinese for the "Foreign Devils" on missionaries and businessmen alike. It is somewhat surprising to learn that some of the leaders of such movements in all Oriental countries are men who have been educated in America and in Europe.

Many causes are given for this movement by different writers, and it is undoubtedly true that many factors are contributing to produce it. But there is a tendency to overlook the economic elements, some of which are of the same order as those which have caused the migrations of peoples in the last three thousand years, and which still tend to produce the same results.

It is interesting to note that the masses are dimly conscious of the situation which their educated scholars fail to perceive. The former, however, do not have to investigate and reason, for the facts are forced upon them in every hour of their lives.

The Chinese have a proverb, "For every three mouths, there are only two rice bowls," which means that most of the people never have enough to eat. Some persons who know Chinese thoroughly and are constantly mingling with the people say that 80 per cent of the talk of the Chinese is about food and prices.

In India they say, "Every 20 years there must be either a famine, a pestilence or war. Of these war is best, for some profit while others lose, while all lose in the other two." The shrivelled bodies and protruding ribs of the half-naked Hindus are evidence that they also are underfed.

In other words, the much discussed "Law of Malthus" is demonstrating its validity in Asia, where the population is increasing so much faster than the means of subsistence that the majority of 600,000,000 live in misery.

CAUSES OF DISCONTENT

There are several causes for the precarious economic situation, all acting in the same direction.

1. Climatic Changes

It seems probable that certain climatic changes are taking place in Asia which tend to lessen the food supply.

Some students are convinced that the rainfall in Asia, especially in Central Asia, is decreasing, or at least that less water is available for the crops during the growing season. The deserted cities of Turkestan along the caravan routes are in regions in which the rainfall is not sufficient to supply the former population of these cities. It would today be impossible to repeat Alexander's feat and to take elephants from Persia through the Makran Desert. Evidence to this effect abounds from Palestine to Mongolia, and it seems probable that the drying up of their pastures forced the Tartars, Huns, Turks and other races to begin those migrations which brought them in such forcible contact with the civilizations of Europe, India and China. This progressive desiccation tends to decrease the food supply, drawn from soils exhausted by overcultivation for centuries, without proper fertilizers, and impoverished by the constant washing away of the surface earth and the removal of the humus. Unscientific irrigation also often brings injurious salts to the surface.

2. Increase in Population

At the same time the population has been increasing rapidly, especially of recent years when wars have been less frequent, and modern medicine and sanitation have lessened the death rate. The prevalence in China of ancestor worship is a constant urge to every man to have as many sons as possible to provide for his happiness after death, and that of his fathers, by ceremonial worship. A similar desire for male children exists in India, where the institution of the joint family removes the prudential checks, and a man is not deterred from procreating many children by the necessity of supporting them, as it is the family as a whole which pays the bills.

There are no reliable statistics about the population of China. The figures which we have today are merely estimates, and those relating to the past can only be guesses. Some authors believe that the Chinese people numbered only 50,000,000 in the prosperous reign of K'ang Hsi (1662) instead of the present 430,000,000. Wars, famine and pestilence have for centuries contributed to keep down their numbers. It has been estimated that 20,000,000 lost their lives in the T'aping rebellion, which ended in 1864, and that 9,000,000 more died of starvation during the famine of 1875, besides the myriads who perished in the Mohammedan rebellion of 1873 and in other famines. Nevertheless, the increase has been so rapid that in 1911 the regions affected were as densely peopled as before, though the total population of China is probably less than it would have been without these disasters.

The Chinese annals give evidence that the economic condition of the masses was better in 1700 than at present.

We have little more accurate information regarding ancient India, but we have reason to believe that the population was much less, possibly about 50,000,000 in the reign of Akbar about 1600, when the country was said to have been most prosperous. Of recent years, however, we have real statistics, for the figures were:

1872.....	206,162,360
1881.....	253,896,330
1891.....	287,314,671
1901.....	294,361,056
1911.....	315,156,396
1921.....	319,075,132

or an increase of 112,912,772, about 54 per cent, in 50 years.

However much difference of opinion there may be about the numbers of the population in the past, or about the economic condition of the masses a few

centuries ago, the evidence seems conclusive that the population of both India and China has been increasing rapidly in the last half century, and that but relatively little addition has been made to the acreage under cultivation or to the product per acre. We must not overlook, however, the successful irrigation of large tracts by the British in India, or the expansion of the Chinese into Turkestan, Mongolia and Manchuria.

We may, therefore, legitimately conclude that the population is increasing so much more rapidly than the means of subsistence that the margin available for the improvement of the condition of the masses is no greater than formerly, and very probably that they have less food than 300 years ago.

3. *Stability Shattered by Machine Production*

Occidental civilization, however, can hardly be justly blamed for the increasing misery of large numbers of Asiatics due to natural causes like these, but there are others in which the impact of industrialism has evidently affected adversely the domestic economy of the Orient.

Asiatic society had in the course of ages reached a balance, which was essentially stable though constantly readjusting itself. Especially in India and China, the village was almost self-sustaining, producing within its borders almost all the articles it needed, and importing only a few essential articles, such as metals and exporting very little; for the cost of transportation, without good roads or adequate horses and carts, was so great that it prevented alike the importation to the village of most manufactured articles, and the exportation of foodstuffs and raw materials.

In India, not only did each district grow all its own food, and materials

for clothing and shelter, but the artisans, such as potters and blacksmiths, did not sell their wares, but furnished the villagers what they needed, were called "village servants," and received in return a share of the crops, as a sort of tithe.

A somewhat similar system prevails in China to this day, as a friend of mine in Peking found to his cost. He had rented a farm in the country for the purpose of experimenting with improved varieties of cotton, but his laborers persistently failed to plant the seed, and it was only after some time that he learned that the village elders had decided that his land was to be planted in wheat for the needs of the village and, in spite of all his efforts, it was.

While this system limited greatly the variety of commodities in use, and was often economically wasteful, it had one great merit. Every man had his assured place in society, was assured of his living, could bring up his children without anxiety, and in many cases the artisan or farmer could take a genuine pleasure in his work. Some students of social conditions say that uncertainty of employment, inherent in our present factory system, is one of the main causes of industrial unrest. At any rate this stable organization of society entirely suited the Asiatic and in the minds of very many its advantages outweigh its disadvantages.

Almost suddenly, the disturbing factor of Occidental machine production shattered this comfortable, though stagnant social organization. The factory operatives in Europe and America produced more manufactured articles than could be sold at home, and so enterprising merchants pushed their sale abroad, and improvements in transportation, by sea and railroad, cheapened costs so greatly that the Asiatic handworkers lost the protection

that had been afforded by the lack of roads, and were exposed to the full force of the competition of power-driven machinery.

The most striking example of the change is the reversal of the textile trade between England and India. In the early days of the East India Company, handwoven cotton goods were imported from India into England, and were so much better in quality and so much cheaper that restrictive measures were adopted to protect the British cotton industry. Since the middle of the last century, however, British cloths have been made so cheaply as to destroy practically all of the handspinning and much of the handweaving of India. The metal industry suffered a like fate. The silk weavers fared no better, and countless artisans all over the Orient found that they were losing their customers.

We all know that one of the greatest calamities which can overtake business men or even nations today is to be undersold, for it means eventual bankruptcy, unless remedies are applied swiftly. Now the artisan all over Asia is being undersold, and resents it. He does not have to wonder what the trouble is, for foreign wares are in every bazaar and in the baskets of every peddler. It is only natural that he should hate the foreigner and all his works with the fierce hatred of trade unionists for "scabs" and "strike-breakers." We have great difficulty in understanding the situation, for in our more versatile and fluid civilization a man who loses his job can usually adapt himself to another kind of work, and so make a living. In Asia, however, the social structure is at once more rigid and more crowded. As in a panic-stricken crowd, the man who falls cannot struggle to his feet and so is trodden to a pulp. In India a

leather worker out of a job must remain a leather worker, and cannot become a weaver or a carpenter, for caste rules do not permit, and they are more severe and more rigidly applied than those of any trade union.

4. *Rise in the Cost of Living*

Our Occidental industrial organization is based largely upon the importation of raw materials from other lands, which are made into a great variety of manufactured articles, which in turn are sold at a profit to pay for the imported food needed to feed the factory operatives. Hence markets are of the first importance, as manufactured goods must be sold regardless of the effect upon the Asiatic artisan, and the industrial nations compete sharply with each other, with a tendency to a steady reduction in prices.

On the other hand, many raw materials are produced in Asia, such as cotton, wool, silk, jute, hemp, rubber, hides and skins, antimony, tin, manganese, mineral and vegetable oils, leather, lac, tanning and dyeing materials, coir, mica, wax and many other articles. The foreign demand for these tends to raise their price to the handworker, and thus to enhance the cost of his output.

Wheat, rice, beans, sugar, starches, vegetable oils, eggs, tea, coffee, spices, cacao, and other food products are exported to the Occident, and the feeling among the population that this raises prices for them is so strong that governments have been influenced to impose export embargoes.

The constant rise in the cost of living, due of course to causes that are world wide, is believed by the Asiatics to be caused by the exploitation of their resources by the foreigner. This has shown itself in China, not only in the Boxer movement, but in popular uprisings against concessions to foreigners

of the right to construct railways and to operate mines and other enterprises. It is only natural that the Chinese peasants, who see their coal and iron mines being worked by foreigners, who are in control of some of their railroads, of their post office, and of their customs and salt revenues, and who are busily engaged in shipping away Chinese products of many kinds, should be easily led by agitators to believe that their legendary prosperity would return if only the foreigners were eliminated. This is one of the causes of the boycotts, which have affected not only the Japanese, largely for political reasons, but also the British and Americans.

The hatred of all foreigners from a combination of political and economic motives is said to be growing in China, and to be the cause of the attacks upon their lives and property, which are causing so much uneasiness.

In India, the situation is even more serious. Agitators, many educated in Europe, have been travelling about, inciting the population against the British, alleging, among other things, that the latter are draining India of its wealth, pointing to the excess of exports over imports, and to the payments of the cost of the army and civil service, of pensions, and to the large profits of the foreign merchants.

The remedies proposed by Ghandhi, a modern Peter the Hermit, are most illuminating. He would meet the increasing economic stress not by increasing production, but by diminishing consumption. He preaches a return to the primitive simplicity of the agricultural and pastoral conditions of 3,000 years ago, with a complete boycott not only of foreign goods of all kinds, but of all Western civilization, such as railroads, banks, post office, telephone, telegraph, and, in short, all the material achievements of the

centuries. He insists that his followers shall be clothed only in "Swadeshi" products (made in India), and that they should be spun on the spinning wheel, and woven on the handloom. All of our comforts and luxuries should be banished, and life restricted to bare necessities.

These teachings are not merely due to ignorance of economic laws, for he has an excellent education, but are in accord with the fundamental tenets of the various Indian philosophies, which teach that all material possessions, and all clinging to life and its pleasures are dangerous to the welfare of the soul, and that salvation consists in giving up the world and in devotion to spiritual meditation. Nothing could be more fundamentally hostile to all that the Occident stands for, with its efforts to improve material conditions, and to increase the comforts and pleasures of life.

THE PEOPLES' REVOLT

The economic situation of the Asiatic masses is not a mere subject for academic discussion, but is of immediate, pressing importance. It has led, within the last few years, to serious disorder, and may possibly lead to wars in the future.

The substitution of a monetary for a domestic organization of industry is destroying the established order of things, and has brought about widespread misery. The diminishing production is no longer sufficient for the increasing population. The Asiatic can just exist today; the annual income of the Indian individual can hardly exceed \$30 a year, and few estimate that of the Chinese at over \$50. Many live from hand to mouth, and never have enough saved to buy food for 48 hours, and others live on the verge of actual starvation.

This condition has existed for some

time, but the Great War has introduced a new factor. Both Indians and Chinese have been docile in the past, they did not feel that they could cope with the foreigner, they have had too many severe lessons. Now, however, docility is a thing of the past, Indians shoulder Europeans into the gutter in Calcutta, and the lives and property of foreigners in China is no longer respected. Indians and Chinese have seen Europeans at close range, the old reverence has gone.

The dominant fact in Asia today is that *Indians and Chinese will no longer starve quietly*. Their efforts to improve their condition may set the world aflame.

PRACTICAL REMEDIES

Let us briefly consider the remedies. The striking fact is that the production today of the Indians and Chinese per man is so small that they could not live in comfort if every man received as wages the whole of his product, with no deduction for the use of capital or for taxes.

1. Scientific Agriculture

Agriculture is perhaps in the most precarious situation, and much can be done by the introduction of improved seeds, manures, fertilizers, and scientific rotation of crops. Better tools, implements and machinery must replace the primitive wooden contrivances in use. Power derived from coal, mineral oil, and water must replace human muscle, which is almost universally in use, assisted by small bullocks.

For all this capital is needed, and this is lacking. "The destruction of the poor is their poverty." Coöperative societies in India are assisting greatly, but the existing rate of progress must be increased if serious trouble is to be avoided, and the whole economic and

social organization must be altered profoundly in order to remove the obstacles which they interpose.

In China, the agricultural situation is most puzzling. Chinese farming is practically gardening, with human labor used to the limit, and it is difficult to see how production can be increased very greatly, even with the use of fertilizers, machinery and power pumps for irrigation. A certain amount of relief would be afforded by migration to Manchuria, if safety of life and property were assured, and to the borderlands of Mongolia and Turkestan, if it were not for the scanty rainfall.

In India there are large areas which could be put under cultivation by the use of tractors to plough the heavy soils, filled with roots and jungle which the native ploughs cannot conquer. Other districts are gradually being brought under irrigation, and much can be expected from seed selection, the use of fertilizers and of improved implements.

If the governments of both countries were to concentrate upon agricultural improvement under the administration of thoroughly competent men, with adequate funds, much could be done to improve the economic conditions of the agricultural population, but the relief would only be temporary, and the increase of population would soon absorb the margin.

The Government of Japan has long understood the situation thoroughly, and has been exerting itself in every way to stimulate the increase of production per *cho*, as well as the acreage under cultivation. It has met with surprising success, for the acreage for 1922 was $4\frac{1}{2}$ per cent over the five-year average for 1910-14 and 18 per cent over that for 1885-89, while the yield per *cho* was 14 per cent over 1910-14 and 41 per cent over 1885-89. The

sum of these two factors was an increase in 1922 over 1910-14 of 18½ per cent and of 66 per cent over 1885-89. Meanwhile the population in 1922 had increased 12 per cent over 1910-14 and 50 per cent over 1885-89, and the consumption per head was $8\frac{1}{2}$ per cent larger than in 1910-14 and 25 per cent greater than in 1885-89.

This shows that the population was probably greatly underfed, and it is quite evident that the conditions of the poorer classes have greatly improved, and that they are spending a large share of their larger wages in food.

One surprising result of these calculations made by Mr. R. B. Pendergast, who from a study of economic conditions has been predicting eight months in advance what rice prices will be in Japan, and to whom we are indebted for these figures, is that, if the average Japanese only ate as much rice today as he did in 1910-14, the production of rice in Japan would be sufficient to feed the population without the large imports of foreign rice which have been steadily increasing. In other words, Japan can feed itself in case of war by reducing the ration of rice.

As a matter of fact, not only does Japan import rice from California, Saigon, Bangkok and Rangoon, but the Japanese raise quantities of barley, and import wheat, which is forming an increasing element in their diet. It is interesting to note that in Japan alone in the Orient, contact with the Occident has improved instead of injuring the condition of the masses.

2. Manufacturing Goods Now Imported

Another remedy is also being tried. Both India and China have begun to imitate the industrialization of the Occident, and have invested large amounts of capital in erecting factories.

to produce with low-paid labor some of the goods which have been imported in the past. The increase of cotton mills in India and China has been making inroads upon the industries of Manchester, and causing unemployment. Japan has progressed very rapidly along the path of industrialization, and its products have been supplanting those of other countries.

The results have not been wholly satisfactory, though in some instances profits have been large. The condition of the operatives is often less comfortable than that of the agricultural laborers, and the slums around the mills are among the worst in the world. Strikes and labor difficulties of all kinds are frequent, and all the industrial problems of other lands are rapidly assuming importance.

Some investigators expect a restoration of national systems of economy in these countries, with the goods formerly produced by the handworker being manufactured in the factories of Bombay and Shanghai, and a decrease in the export of raw materials and food-stuffs, as well as of the import of manufactured goods, with serious effects upon the industries of the countries which now exchange products with China and India. There is an insistent demand in the latter for a protective tariff on the American model.

Both the remedies of increased agricultural production and the manufacture of goods now imported would be only temporary, if the rate of increase in the population is not abated. A diminished birth rate seems essential to the well-being of the continent, and this could be brought about only by a complete change in the point of view of hundreds of millions.

We have been accustomed to believe that the masses in Asia are so utterly engaged in the fierce struggle for mere

existence that they are not likely to make any concerted efforts to improve their economic condition. This was largely true in the past, but not today, for the startling fact is that all classes in Asia are thinking, even the outcasts of India, and in many cases they are even taking the reins into their own hands;—for instance, the “untouchables” of the Madras Presidency have recently secured a majority in the legislature, which has in the past always been under the control of the Brahmins.

Indian workers, not only in the cotton mills, but in many other lines are constantly striking, very often with success, to improve their economic condition.

One Indian writer states:

The Swadeshi Movement and the report of the Fiscal Commission show that opinion in India is being driven by economic stringency to seek some solution of present-day difficulties. Comity is left behind when the rulers fail to organize resources.

This movement at one time threatened British control of the country, and some of the leaders had definite programs of agricultural and industrial advance. The Government has already passed labor legislation containing many provisions for the improvement of the status of the laborers along the lines laid down by the Washington Conference, and is carrying out many measures for the assistance of the cultivators. Bolshevik agitators have been preaching their doctrines, and the soldiers and laborers who have served abroad during the war are centers of unrest. The ferment of revolt against existing misery is spreading and no one can say what the results will be.

A similar situation exists in China, where successful strikes are even more frequent than in India, and the various boycotts of Japanese goods have produced serious consequences. Such

popular movements have several times been beyond the power of the central government to control. The situation there is complicated by the general political chaos and the bankruptcy of Government finances. Bolshevism is also being preached, especially in the industrial centers.

In Japan, the Government has been intelligent enough to follow the example of Great Britain, and to industrialize the country, thus affording at least temporary relief for the economic pressure.

AMERICAN METHODS IN THE PHILIPPINES

It may be interesting to study what has been accomplished by the American Government in the Philippines in one instance, where the problems were simple, and free from the complications which accompany those on a larger scale.

Population among the "Headhunters" of Luzon was kept down by head-hunting and disease. The Government stopped the former for a time, and vaccination, sanitation, hospitals and doctors diminished the death rate so that population increased very rapidly. The amount of land in the valleys between the mountains of northern Luzon suitable for irrigated rice was limited, so that the food supply became insufficient.

The Government met the difficulty by introducing the use of fertilizers, rotation of crops, the use of leguminous plants to be ploughed under, seed selection, deeper ploughing and better methods. As the diet of the people was too greatly farinaceous, with few fats, oils, or proteins, new food plants were introduced from various countries. Among them were sweet potatoes, bananas, beans, beets, cacao, camotes, cabbages, carrots, cassava, cowpeas, coconuts, cucumbers, eggplants, en-

dives, ginger, gourds, lemons, limes, lettuce, mangoes, maize, millet, melons, mongoes, mustard, onions, oranges, papayas, peas, peanuts, pechay, peppers, pineapples, pilinuts, potatoes, pomeloes, radishes, sorghum, squashes, sugar cane, tomatoes, turnips, ubi and yams. The keeping of cattle, goats, sheep, pigs and chickens was encouraged.

About a dozen of these food plants proved very successful, especially peanuts, beans and peas, and some of the garden vegetables.

Some money crops were also necessary to enable the people to buy blankets, tools and other necessities, and so they were taught how to plant mulberries, raise silkworms, Arabica and Robusta coffee, cotton, kapok, quinine, camphor and tobacco.

The result of this was that the food supply became adequate, as many of the new plants could be raised on the unirrigated hillsides, and the sale of the coffee brought in a certain amount of cash from the lowlands. Handloom weaving, lacemaking, carpentry, basket making, and other industries taught in the schools, also added to their incomes.

While these experiments were only on a small scale, they were carried on along scientific lines under expert advice, and merit study by those who are engaged in solving economic problems in the tropics. Unfortunately they were discontinued when American administration was terminated, and practical autonomy introduced.

THE NEED FOR TIMELY REMEDIES

We may safely assume that the economic pressure upon the masses of India, China and Japan is rapidly growing unendurable, and that explosions of some kind are inevitable, if effective remedies are not applied. As the misery of the Russian peasants

caused the overthrow of the Romanoffs and the advent of Bolshevism, so the wretchedness of the Oriental cultivator is likely to cause revolt against the rule of the European races in the countries now dominated by them, and against their economic exploitation of China and other independent lands.

Absolutely new forces are at work in the Orient, unknown in the past eight thousand years. National and class consciousness are growing apace; the war cry is "Asia for the Asiatics!" If the rulers do not apply remedies the masses will try to throw off the burdens which are crushing them, unintelligently, blindly, disastrously, perhaps, but violently enough to shake the old order to its foundations, if not to wreck it beyond repair.

Opinions differ as to the imminence of this catastrophe, and as to the possibilities for averting it, but most careful students are agreed that something should be done quickly, though the vastness of the scale makes efficient action difficult, in view of the financial embarrassments of most Asiatic countries, for all social remedies require large sums of money from governments, and increases of taxation are at present almost impossible.

Asiatic opinion is growing to believe that all the remedies which have been outlined are merely temporary, and that there is only one effective remedy, namely *migration*, on a stupendous scale.¹

Off the coast of China lie the Philippine Islands, only partly cultivated by its 11,000,000 inhabitants. European experts from Java have estimated that the Philippines could support in comfort 55,000,000 Chinese by agriculture alone.

The East Indies from Sumatra to New Guinea are practically uninhab-

ited, with the exception of Java, and could maintain a large population, if the tropical jungles could be conquered.

The continent of Australia has only a small population, mostly concentrated along the coast of the south-eastern portions, and the northern sections are not suited for white men to work out of doors.

Africa is undeveloped, the negroes are not inclined to labor in the factories and in the fields, and white men cannot stand the climate except in limited areas.

The basin of the Amazon and other large regions of South America also lack the labor necessary to turn the tropical forests into agricultural districts.

The Japanese, like the people of France and of the United States, are not contented away from home, and have shown no tendency to emigrate to Korea or Formosa. The Chinese have been very successful in Malaysia and many other places, and seem able to stand almost any climate or living conditions. The Indians have provided much of the labor of the Malay states, and have penetrated to South Africa and Kenya, as well as to several districts in South America and the West Indies, and to many other places.

The question is whether the increasing millions of Asia will be permitted to migrate to these unoccupied areas, to develop them and provide comfort for themselves and their families. Will it be possible to confine them forever to their present inadequate boundaries? Will the white races, which now control all these areas, allow the Asiatics to populate some sections, while retaining others for their own occupancy? Further, will the white races be able to feed their expanding millions by agriculture in the temperate zones, or will they be forced to draw their supplies

¹ But compare Mr. Culbertson's statement on page 117.

of starches, sugars and oils from the lands which are now covered by tropical forests? It is quite evident that the white races cannot provide the labor necessary to conquer tropical vegetation and diseases.

At present the white races seem disposed to maintain the existing arrangement. They may be able to do so indefinitely, but we may be sure that the Asiatic races will make an effort to have their views given at least sympathetic consideration. Today these problems are still within the domain of the statesman and the economist; tomorrow they may be beyond our control.

The situation, is however, not hope-

less, for there are some signs of a slowing down of the increase of population in the Orient, and if this continues and is combined with efficient improvement of agricultural and industrial methods, the necessity for migration may be indefinitely deferred.

Of one thing we may be sure, namely, that the Asiatic races have not sufficient training to solve their problems unassisted by the capital and the technical skill of the Occident. If this is not provided, we may see the Orient struggling to burst the bonds imposed by the Occident.

Asia will not succumb without a vigorous effort to secure and hold the unhindered control of its own destinies.

Raw Materials and Foodstuffs in the War Plans and Operations of the Army

By COLONEL WILLIAM P. WOOTEN
United States Army

IN his book on the *Political Economy of War*, Professor Pigou makes the statement that the real fundamental causes of war are, in their last analysis, two in number: the desire for domination and the desire for gain. Like all generalizations this one doubtless has its exceptions, but there can be no doubt that in the vast majority of cases it will be found that at least one of the opponents, and frequently both, have been impelled by one or the other of these motives. Usually both motives are present, but the desire for gain is probably the more impelling.

This desire for gain may manifest itself as a mere lust for loot among primitive peoples, a determination to open new regions to trade, or a purpose to seize and to hold fertile lands and rich forests and mines, the sources of food stuffs and raw materials.

This last named purpose has been a

prolific cause of war since the dawn of history and doubtless even before that dawn. It is just as prolific today as it ever was. The same motive that drove the Israelites to the conquest of Canaan drove the German Empire into the World War. They were both seeking a "place in the sun," lands where they might find in the one case, food for themselves, in the other, raw materials for their industries.

But we are concerned this afternoon not so much with the basic causes of war as we are with the effect of foodstuffs and raw materials on the planning and conduct of war.

The part which these factors played among the ancients, though relatively small, was by no means negligible. The supply of arms and equipment constituted no particular problem. There was no ammunition to be expended and consequently none to be

supplied. Clothing wore out and required renewal, but in prolonged campaigns armies were usually small in relation to the size of the state and their demands for supplies constituted no particular drain upon the resources of the state. With food the case was somewhat different. The soldier must get his daily ration. With their inadequate transportation and primitive road systems this ration could not be brought from afar. The army must necessarily live on the country either by seizing supplies from the enemy, by receiving contributions from its allies, or by purchasing from neutrals. The movements of an army were therefore largely controlled by the existence of foodstuffs in the area in which a campaign must be conducted. In reading Caesar's Commentaries as school children we were not, as a rule, particularly interested in his narrative, but we must necessarily have noticed his references to the *res frumentaria* and the not infrequent occasions when his plan of battle or his conduct of battle was hampered by the absence of a part of his forces collecting grain.

THE PLACE OF FOODSTUFFS AND RAW MATERIALS IN MODERN WARS

But it is in modern times that the problem of foodstuffs and raw materials has become of such intense importance in planning and conducting war. The industrial revolution which had its beginning about a century and a half ago has been accompanied by radical advances in all lines of human activity and revolutionary changes in all the conditions affecting the relations of individuals and of nations. The advanced nations of Europe are today covered by a closely meshed network of excellent roads; the United States is rapidly becoming so; the other nations of the world will doubtless follow in due course. Within the past few years

the development of automobile transportation for both passengers and goods has resulted in a rapidity of movement and a volume of traffic over these roads such as was hitherto undreamed of. Just as these roads give the smaller communities physical access to each other so the application of steam to sea travel and to railroads has produced a tremendous flow of men and materials between the nations. Binding the whole together is the practically instantaneous means of communication afforded by the telephone, the telegraph, the cable and the radio.

With these wonderful facilities for trade it is entirely natural that we should see a tremendous specialization in the industrial growth of the different nations, each people developing along the lines which its natural environment most favored and depending upon others for those things which it could produce only with difficulty. From the point of view of the economic development of the world this specialization is most desirable. It enables the energies of every people to be exerted along the lines in which they will be most effective. Waste effort is thus largely avoided and if universal peace and reasonableness could be assured the system would be most admirable. But no one is yet able to insure universal peace and reasonableness, and the problems confronting a nation which is forced into war are of greatly increased complexity.

In the stage to which it is at present developed the art of war makes use directly or indirectly of practically every agency and every material which is employed in industry. Coal and iron are the bases of modern industry. They are also the bases of modern war. About one ton of steel is required for the ordnance and transport components included in the initial equipment of a modern soldier. The annual national

consumption of steel for military purposes by the Western European belligerents in the World War was from two to two and a half tons for each soldier in the field. Steel, of course, means coal and iron. Hence the inherent ability of a nation to sustain a prolonged war may almost be gauged by its coal and iron production. But not quite. These are the most fundamental of the raw materials, but there are many other essential ones besides. To enumerate them all would be to read the entire list of industrial raw materials. All these have their part to play in ordinary peace-time industry. But when a nation enters into a war which requires the mobilization of all its resources, the demand for these materials is vastly increased at the same time that the labor available for procuring them is diminished. The war industries must be fed, but the peace industries must not be starved. The supply must be secured from somewhere.

Of course if the country habitually produces an exportable surplus of any material no problem in regard to that material exists. The area which produces it must be protected. Chile need not worry over a supply of nitrogen nor the United States over steel, but Chile must guard her nitrate beds and the United States must protect its Minnesota mines.

MAKING UP DEFICIENCIES

But if deficiencies in the domestic supply normally exist they are greatly accentuated by the increased demand in war. How can these deficiencies be made up? There are several ways.

1. *By Rigid Economy*

In the first place a rigid economy in the non-military uses of the deficient material may be voluntarily observed or arbitrarily enforced. Doubtless

none of us will forget the food economies practiced in this country during the World War, while among the nations associated with us certain food articles such as bread and sugar were actually rationed. You know also that the distribution of steel and other important raw materials was so strictly supervised that the industries of this country as well as of our associates were in reality on limited rations. A rigidly practiced economy can always ameliorate the situation and, where the deficiency is small, may afford a complete solution of the problem, for normally the consumption of everything is greater than necessity strictly requires. This is particularly true in America. But, in general, economy can be practised only within sharply defined limits and must be supplemented by other measures.

2. *By Increasing Domestic Production*

In the second place domestic production may be stimulated. This may be accomplished by direct appeal to the people or by the much more effective appeal of higher prices. The farmer will increase his acreage under cultivation or will cultivate more intensively. Even the city resident will resort to the spectacular "war garden." Mine production can usually be increased. Producing mines can be worked more intensively, abandoned mines can be reopened, and new ones developed. The tremendous production of copper, lead, zinc and other minerals stimulated in this country by war needs and war prices is strikingly evidenced by the great oversupply for peace purposes which existed at the close of the war. Increasing supply by stimulating domestic production may be very effective where the domestic resources are susceptible of increased production. But it necessarily requires time. Certainly some months and frequently

some years must elapse before a sufficient increase can be effected. By that time the war may be over. It must be remembered, too, that this increased domestic production is required at a time when the available man power of the country is being heavily drawn upon by the army and navy. It can only be secured by increased effort and longer hours of work, and by bringing into the ranks of the workers men and women who have until then been either unemployed or employed in non-essential pursuits.

The difficulties and delays which must necessarily be encountered in stimulation of domestic production may prove fatal unless this stimulation is effected in time of peace. Therefore, if there is any probability that a country in time of war will have to depend upon its internal resources for the production of any material essential to the prosecution of that war, the peacetime production of this material must be brought to a point which will insure an adequate supply when war comes. Let me take an example. Fixed nitrogen is, of course, a basic raw material in the manufacture of explosives. The only deposits of this material of any consequence are found in Chile. Germany, foreseeing that in case of war her trade with Chile might be interrupted, proceeded some years ago to establish and develop plants for the fixation of atmospheric nitrogen. She thus rendered herself independent on this score. Had she not done so in advance she would have lost the war much sooner than she did, for our own experience showed that the building up of plants for nitrogen fixation cannot be accomplished over night.

Prospective military needs thus often force a wise government to maintain by tariff, bounties, or other artificial means, the domestic production of certain raw materials which ordinary

commercial considerations would not justify.

3. *By Imports*

In the third place importation from foreign sources may be increased. But there are several questions to be examined in this connection. Have the foreign sources the physical capacity to meet the increased demand? Are we sure that the countries from which the supplies are to be imported will be our allies or neutral? If the trade routes by which the supplies are to come lie through other states are we sure that those states will permit the flow? If the imports are by sea can the Navy guarantee that our trade will be uninterrupted? These questions must all be answered in the affirmative if we are to count upon imports for our supply. But assuming that we can get them, how can we pay for these imports? Can we export gold or surplus products, or must we obtain foreign credits; and will our foreign credit, under the stress of a prolonged and expensive war, be good enough to enable us to bring in all the imports which we shall require? There is strong reason to believe that if the United States had not entered the World War the foreign credit of the Allies might not have been sufficient to enable them to continue to secure the supplies necessary to carry on the war to a successful conclusion. Imports must sometimes in the case of certain supplies be a country's chief dependence, even in war, but there is always a possibility of danger in them and they should be depended upon as little as possible.

4. *By Substitutes*

In the fourth place substitutes may be found for some of the raw materials most difficult to obtain. Usually these substitutes do not prove in every respect satisfactory. Corn meal instead of wheat flour, fish instead of

flesh, saccharin instead of sugar, infusions of various leaves, roots or grains instead of tea or coffee, are all familiar examples of food substitution. Aluminum may in many cases replace copper. Steel may be used where brass would serve the purpose better. The steel cartridge cases which the Germans began to use for their 77's near the close of the war are but one instance of a multitude of substitutions to which they had been compelled to resort. I need not mention others. Every stubbornly contested war furnishes scores of examples.

5. *By Reserves*

After a thorough canvass of the available resources has been made and due weight has been given to the probable effect of economies, augmented production, imports and substitutions, there remains one other course open to bring about a balance between supplies and needs; that is the establishment of a reserve. Of course all nations carry reserves either of raw materials or of finished products, or of both. Every army, even the restricted German Army, has a certain number of guns and a certain amount of ammunition

ing and maintaining it, are very important items and their expense scarcely seems justified in piping times of peace when there is no cloud on the horizon. But the situation must be watched and at the first sign of impending storm the reserve must receive attention and must be built up gradually or rapidly, as occasion may demand, until it is sufficient to tide over the first few months at least. A nation must not imitate the shiftless farmer whose barn roof could not be fixed when it was raining and did not need fixing when the sun was shining. The determination of the size of reserve to be maintained is not an easy one. Neither demand nor supply can be accurately foretold. But careful study and good judgment can usually produce a reasonably satisfactory solution.

A very interesting deduction as to a nation's effort to build up a war reserve of raw materials may be drawn from a study of the following table compiled from *Smith's Strategy of Minerals*, which shows the importations of certain articles into Germany during the fiscal year ending June 30, 1914, in comparison with their importation during the four years preceding.

ARTICLE	ANNUAL IMPORTS, 1910-13	IMPORTS, 1914	PER CENT INCREASE
Nickel from U. S., tons.....	820	4,949	500
Manganese, tons.....	449,885	816,057	80
Sulphur from U. S., tons.....	3,846	20,220	425
Brass from U. S., value.....	\$501,359	\$1,105,000	120

with which to begin operations. But the ideally adequate reserve is one which would fill the gap between production and consumption throughout any war in which the nation might become engaged. Naturally such a complete reserve is never held. The first cost of establishing it, the cost of stor-

Other articles could also be listed, but these suffice to show very strikingly the effort being made to build up a reserve of essential war materials just before the outbreak of the World War. The increase in these importations cannot be ascribed to the normal growth of German trade, for the quantity of total

imports showed no such rise. Everyone can draw his own conclusions as to what this indicates with reference to Germany's foreknowledge of the coming war and consequent responsibility for it. My purpose in presenting them is simply to give a concrete illustration of the building up of a war reserve of raw materials in advance of a declaration of war.

THE DESTRUCTION OF SUPPLIES

So much for war planning, now for the conduct of war. Of course the primary mission of an army is the destruction of the enemy's armed forces. This must generally be accomplished by attacking and routing and dispersing his troops in the field. But this defeat of his armies may often be made easier by cutting off their sources of food and munitions. The existence of important sources which are susceptible of attack is often the basic reason for very important military operations. Sherman's march to the sea furnishes a striking and brilliantly successful example of such an operation in our Civil War. By cutting off from Lee's army the stream of supplies from the southern part of the Confederacy he undoubtedly hastened the surrender. The prolonged German occupation of Belgium and northern and northeastern France, though not primarily designed for this purpose, effectually denied the allies the important foodstuffs and coal and iron products of those regions and thus intensified to a very marked degree their problems of supply. It made it absolutely necessary for them to find the ships and the men to bring into the scale the vast North American tonnage from across the Atlantic.

If enemy sources cannot be seized and held they may sometimes be seized and devastated. Devastation is not necessarily reprehensible. It only becomes so when carried to lengths be-

yond those which the military situation requires. Only when extended to objects which cannot conceivably have any military value to the enemy does devastation cease to be a proper military measure and become a crime.

THE RELATIVE STRENGTH OF THE NATIONS

It may not be amiss to touch very sketchily upon a few points of military strength or weakness arising from the distribution of foodstuffs and raw materials among the leading nations of the world.

The United States is in this respect the most favored nation of the earth. We produce all the essential foodstuffs and can exist without any importations of them, though we would suffer inconvenience from a shortage of sugar and tropical fruits and an entire lack of tea and coffee. We have coal, iron, petroleum and copper in abundance. Some of the minor metals important in steel making, such as manganese, we now import in part, but could probably produce in sufficient quantity if necessary. Nickel we must import from Canada and nitrates from Chile. Cotton we have, of course, but part of our wool and all of our silk, flax, and other fibers must be imported. Our farm areas are not subject to attack, nor are any of our other primary sources of domestic supply, with the single exception of a part of our iron. If Canada, with whom we have lived at peace for more than a century, were to join the ranks of our enemies, we should have to look to the protection of our northern iron mines. With Canada as a neutral or an ally they are safe.

Great Britain is self-sufficient in coal and iron, but has great deficiencies in everything else. She can draw upon her self-governing Dominions and her colonies for many of these, but must look to foreign countries for others.

Her problem is mainly a naval one which I shall not attempt to discuss.

France produces a very large proportion of her food supply, but must make some importations. She has a sufficiency of iron, but her coal is inadequate in amount and not generally suitable for coking. The union under the German flag of Lorraine iron and Ruhr coal, which was one of the greatest factors in the industrial development of Germany and the most important economic source of her military strength, was dissolved as a result of the World War. I have no desire either to express or to imply any opinion as to the eventual result of France's occupation of the Ruhr, but if in the course of time it should finally work out that Lorraine iron and Ruhr coal are again united, and this time under the tricolor of France, her hand would be immensely strengthened against any future German aggression, and she would take Germany's place as a very serious rival to the steel trade of Great Britain. The weak point in France's armor is the proximity of her iron supply to her frontier. France lacks rubber, copper, petroleum, and most of the other raw materials. She must depend upon an open sea and foreign trade for their supply.

Italy is deficient in food supply and in practically all important raw materials. Her problem is principally a naval one.

Japan is normally slightly deficient in food supply, but can make it suffice. Her coal reserves are not large, but her supply is adequate. She is a producer of copper. She is deficient in most other essential raw materials, notably iron ore. Steel is the very foundation stone of modern military power, and of steel Japan has never produced in any year more than about 600,000 tons. Less than one third of the ore for this was mined in Japan and Korea. The

rest came principally from China. This fact alone sufficiently demonstrates Japan's absolute need of insuring for herself an uninterrupted flow of raw materials from China. Her own total reserve of iron ore is less than is produced each year in our Lake Superior district. Of Japan's importations of steel and iron the United States supplies 60 per cent. She produces something over 300,000 tons of petroleum per annum from which only 50,000 tons of oil for her navy can be obtained. This would last her navy under war conditions about one month. Three fourths of her imports of petroleum come from the United States. Hence her need for the northern half of Sakhalin, where extensive oil fields are found to exist. All her rubber, wool and cotton must be imported. Of these she secures from China only cotton, and not more than 5 per cent of her requirements at that. One half of her cotton comes from the United States, the rest from British India.

The material basis of Germany's pre-war military strength lay in her production of coal and iron. As a result of the war she has lost most of her iron and much of her coal. Her coal supply, if we may include the Ruhr, is still sufficient. Her iron ore must be largely imported. She is deficient in most other military raw materials and in food supply.

As regards Russia and China, the absence of national unity of purpose, the lack of good communications, and the backward state of industrial development render a present discussion of the military significance of their raw materials of academic interest only. It is sufficient to say that these countries have natural resources of great importance, and may at some time in the future become military powers who must be very seriously considered.

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states are self-sustaining as to food and produce many important materials. Iron ore is largely lacking except in Brazil, and coal is of rare occurrence. In none of them does there exist the conjunction of the two which makes possible that high industrial development which must form the economic foundation of strength in war.

I have purposely avoided details and refrained from giving many figures. I have tried to outline, in a very sketchy

way, one of the important problems which must be solved by a nation confronted with prospective war. I am not trying to persuade anyone that this is the only problem, nor even that it is the main one. Battles are, after all, not fought by materials, but by men. Things may aid men, or lack of things may hamper them, but the issue of war is primarily determined by the courage, devotion, tenacity and genius of men.

Raw Materials and Foodstuffs in the War Plans and Operations of the Navy

BY CAPTAIN FRANK H. SCHOFIELD
United States Navy

IT is rather dull business to have to listen in time of peace to the requirements and the problems of war. We all hope that there may be no war again, but we also hope sometimes in a rather vague and dreamy way that, should it come, those army and navy people will make it short and snappy, and that we shall vindicate effectively and conclusively our own particular brand of justice and idealism. I think that brand is the best in the world, but if all the world agreed with you and me there would be no more war, nor rumors of war. I hope that armies and navies are going to have one grand and glorious vacation, but sometimes I have my doubts. Statesmen and rulers, be they autocratic or democratic, seem ever determined that military and naval forces shall not be too idle.

I shall not attempt to deal in detail with sources, or kinds, or quantities of raw materials, but, instead, shall try to point out to you some of the problems which they present to navies in time of peace as well as in time of war.

First, what is a war plan?

There is an idea somewhat current that a war plan tells the commander in the field or the admiral at sea what to do under all conditions; that it is something like the plan of a house—complete in all its details from cellar to garret. Of course this is not the case. A war plan embraces in detail all the preliminary measures for war up to first contact with the enemy. After that it outlines the general aim and the subsidiary aims, but of necessity leaves to the man on the spot the decision as to how to accomplish these aims. When two wills are in conflict, our own and the enemy's, our will cannot be carried out uninfluenced by the enemy's will.

For instance, no war plan could have foreseen and provided for the first two great naval actions in the war between Great Britain and Germany, one off Coronel, Chile, and one off the Falkland Islands. Yet these actions were necessary parts of the general aim of protecting sea-borne commerce on the one hand and of attacking it on the other hand.

Then, too, war plans do not begin

with the war. They carry on during all the days of peace as well.

In those governments where military affairs are necessarily always well to the front in the public mind and in the mind of the government, scarcely a week passes when decisions are not taken that bear directly on national military or economic strategy. Our geographic isolation and our wealth of natural resources are principally responsible for the freedom we feel in these respects. If political considerations should lead us to break down this kind of isolation, then we may expect to experience in no small degree the concern and the fears that lurk always in the capitals of Europe and from them radiate to the peoples of Europe. We shall then be obliged to consider more carefully than we consider now each move that influences the strategy of our world position and shall be obliged to guard with special care the freedom of naval action that is necessitated by the assumption of more distant and intricate world responsibilities.

From the very nature of war plans, their lack of detail, their instability even in some of their major features, it is not possible to provide definitely for those raw materials and for those commodities in general that must come to us by way of the sea. Provision for these must be sought in general peacetime preparation.

NAVAL VS. MILITARY NEEDS

The problems presented to navies by question of supply of raw materials from external sources are not greatly different from similar questions of supply of commodities in general. These problems are problems of sea transportation. Of course navies have to consider specifically their particular needs for particular raw materials, but these needs, except for fuel, bulk so

much smaller than military and national needs that there need be but little time given to their specific consideration. There is this difference, however, between naval needs for material and the broader military and national needs for material. Navies must have their essential supplies available where needed before war comes, else they will be unable promptly to operate to open up the road across the sea to those sources of materials and commodities essential to the national effort in war. If the navy cannot begin to operate immediately upon the outbreak of war—if its fuel is inaccessible, for instance—or if it has exhausted its supply, it will give no support to the national effort to bring in essential raw materials. The sea will belong to the enemy. This is the reason why the naval officer constantly presses towards the goal of a fleet always manned and always ready, for it alone, so far as America is concerned, is the barrier behind which the nation may prepare to put forth its effort.

The case of oil fuel—petroleum—is a case in point. The supply is limited. Some say to 20 years, others 50 years, but all agree that as between oil and coal, coal will last much longer. The warship that burns oil is vastly superior as a fighting ship to the ship that burns coal. It can steam at highest speed for days, while coal soon clogs the boilers of the coal-burning ship at highest speeds and slows it down after a few hours. The oil burner can take fuel at sea from another ship. It can be built so as to be almost unsinkable by torpedoes. It can use smoke screens to the confusion of the enemy. It requires a smaller crew. It can steam farther. All these and other advantages make a reserve supply of oil of the highest naval importance. The oil-burning

navy that fights a coal-burning navy has an easy task. Ours is an oil-burning navy. We must keep it so or build a new navy.

Some years ago some valuable oil land out West was set aside as a United States naval oil reserve. It was said to be enough to keep the Navy going a century. But as is always the case in nearly every government the pressure of organized private interests was too strong. The Navy lost control of the reserve. Today it is in other hands and will be exhausted concurrently with other national oil resources. Last year several hundred square miles of land in northern Alaska were set aside as a naval oil reserve. If there is any oil there we shall be glad. But we live in fear that some zealous but misguided naval officer will go up there and discover oil before the Navy has to begin using it.

PROTECTING SEA-BORNE COMMERCE

How does the navy guard the sea-borne commerce of its country? How are essential raw materials to be guarded on their way to us from overseas?

What steps during times of peace will help? What during war?

I shall try to indicate the answer to the second question first.

In the winter of 1915 I was cruising down the west coast of Africa looking for a corrugated iron roof to show through the coconut trees and tell me that I was near the port of my destination, when I sighted a long line of native dugout canoes stretching from a thatched village on the beach far out to sea. In each canoe there were two natives and two rifles. Nearby were other canoes rolling lazily about carrying other natives who were peacefully engaged in fishing.

The tribe was at war with two other neighboring tribes, one to the north

and one to the south. The jungle between those tribes was practically impenetrable—no fighting was possible in the jungle. The tribe to the south depended largely on fish for food. The tribe to the north needed rice from the south. Neither of these tribes were very good at canoe building or at handling canoes. So when one of them went for fish or the other for rice by sea, as they were compelled to do, the seagoing tribe, the one with the long line of canoes stretching seaward, attacked their enemies, and some days afterward those venturesome food-seeking canoes would drift on their own shores bearing the headless trunks of their late occupants. So when I came to that line of canoes it was lolling lazily in the sun and security reigned in the village on shore while the men got ready to deliver by sea the coup de grâce to their enemies.

It struck me then that there before me was spread out the fundamentals of naval warfare. To use the sea for one's self. To deny its use to one's enemies. To guard one's own shores, and finally, if no other means will serve, to attack by way of the sea. I know of no clearer, no sounder illustration of the relation of naval action in time of war to the supply of raw material that must come by way of the sea. No books, no generals, no admirals had taught that native tribe its strategy, but the stern struggle for existence had led them to the sound application of strategic principles adapted to their special environment.

So in time of war the theater of which may be all the seas and where the sources of food and raw materials may be the four corners of the globe, the effort must be to close all those seas to enemy use and to keep them open for our own use. There is just one final, one conclusive way of accomplishing this mission, and that is

by the destruction of enemy-fighting ships wherever they may be. All other methods are palliative, not conclusive. In this fact lies the reason for the constant insistence by naval officers on fighting ability as the primary consideration in every type of ship, and the further insistence on at least equality in numbers. Like most other Americans we are willing to back ourselves if we have a 50-50 chance.

Of course it is impossible to guard all routes, to escort all vessels carrying supplies, so we have to estimate values, determine essentials and guard them. First of all these essentials is the actual line of supply of the forces at sea. That must not be interrupted or naval effort will be discontinuous, halting, ineffective.

PROTECTING THE LINE OF SUPPLY

I do not want to burden you with statistics, but I do want to leave with you some realization of the fuel problem of a navy at war far from its source of supply. Merely as a picture let us take the fleet that was left to us after the Treaty for limitation of naval armaments and put it, together with an appropriate military force, in the western Pacific in defense of, say, a totally independent Philippine Republic and see what our fuel requirements would be. How many fuel ships would be required to keep our Navy active out there? If every oil tanker were of the uniform size of 10,000 dead weight tons—a fair-sized vessel—we would require not far from 300 such vessels for the transportation of oil fuel alone. We would require nearly 100 vessels of similar size for the transportation of coal. Added to this enormous fleet there would be hundreds of vessels carrying food, clothing, munitions, troops.

This illustrates the magnitude of the

problems that distant action by naval and military forces entails. But the above mentions only the dramatic personae of the story. The action of the story may be triumph or tragedy depending on the degree of our clear thinking and sound action in peace as well as in war. Those cargo ships no matter where they operate—no matter in which ocean the difficulty may be—must travel over great distances exposed to attack. It matters nothing to the distant fleet whether a fuel ship be sunk as it is leaving port, or just as it is about to complete its outward voyage, the fuel is lost, naval action correspondingly hampered. So the question of guarding those ships throughout their voyage is one of constant concern. You saw a very mild example of it during the World War when we had only the submarines to fear.

At the beginning of the World War there were at large ten rather unimportant German vessels of war in position to do damage to the commodity streams flowing in ships toward the Allies. It took over a hundred allied ships, many thousands of miles of cruising, and months of the most persistent naval effort, to clear the seas of those ships. Think of the problem when war is between two powers both of which may send its vessels to sea with comparative freedom when whole navies instead of a few furtive cruisers will operate against shipping.

I am not going to tell you how we propose to solve these problems of defense, but I betray no secret when I say that the constant effort in building up and training any navy is directed towards an ability to cope with this and similar problems through the medium of battle. Protection on the spot will be impossible except in very congested areas, so that pursuit wil-

depend upon the measures taken in time of peace, the fuel accumulated in areas of operation, and, mark this carefully, the international agreements made.

PEACE TIME MEASURES

What measures taken in peace will assist the flow of raw materials from overseas in time of war?

I would put cordial foreign relations, not public only, but private as well, in the front rank of these measures. Neutrals in war are bound to be influenced by feelings, so we come to know neutrals as benevolent, strict and hostile (if that term may be used of neutrals). Our peace aim from a purely material standpoint should therefore be to lay the firm bases of friendship everywhere. This looks sordid, but it is not. It is reality stripped of camouflage. It is the same as if we should dissect the graceful—and even convincing—generalities we listen to regarding America's non-coöperation and find the heart of the matter to be, as it is, a unanimous foreign demand that America cancel the debts of the Allies, float a German loan sufficient to pay the reparations, then whistle for payment during the next century while American manual labor sweats for Europe, and Europeans tell us in solemn phrases how often and how fully we fail in our manifest duty.

But the reason for cordial foreign relations is basically something quite different. There is but one safe road to travel and that one road is a happy road to travel, the friendly road. Fortunately it suits our material as well as our spiritual interests to travel it.

Next to cordial world-wide foreign relations I would put among the measures to be taken in time of peace, material security,—the ships, the bases, the men, who are fitted for the

tasks that may lie before them. These questions of ships, and bases, and men, are the ones we Army and Naval officers bother you about so much and to which we fear you listen with some impatience. Frequently you place your sentiment, your emotion, against our professional judgment and feel a thrill of accomplishment. But when you come to deal with facts we notice you never send a group of pacifists to protect missionaries, but guns and bayonets instead. If Haiti runs amuck—off go the Navy and the Marines—if Europe is perishing—off goes the Army. The nation has assigned to us of the Army and Navy the duty of being responsible all our lives for your well-being and your protection. We are denied, therefore, the pleasure of relaxing to sentiments satisfied, and are condemned instead to think and to struggle with realities, present and future. We find our rich rewards in the satisfaction of loyal service.

And next among the measures to assist the flow of raw materials from overseas in time of war I would put successful international negotiations. All of you have heard that the Navy is the nation's first line of defense. It is not so. Diplomacy, statesmanship is the first line. The Navy moves up to the firing line only when diplomacy fails and falls back, not before. Sometimes, as in 1908, it parades, for diplomacy, and always it is visible in the background, but during all the days of peace, diplomacy itself is on the firing line. So watch carefully the battles it fights. When war is over, diplomacy again moves into the firing line and wins new victories, or, sometimes, loses the victories won by blood.

Just one instance of the influence of diplomacy on the flow of raw materials in time of war,—the submarine question at the Washington Conference.

Great Britain wanted submarines

abolished—a laudable purpose that was consonant with her desire to ameliorate the unavoidable exposure of her sea lines of supply. Her interests would be served by the abolition of submarines. The less powerful maritime nations would not agree because they believed their interests would suffer by the abolition of submarines. So we kept the submarines but agreed to a treaty that seemed to limit their action, that exempted the merchant ship from their field of action. The point of the law was emphasized when Mr. Root placed halters around the necks of naval officers. It looked as if Great Britain had succeeded very largely in her aim of making submarines impotent against

commerce. But French statesmen step forward to pull the teeth of the treaty by offering reservations permitting submarines to attack any vessels in the same manner as they might be treated by other vessels of war, and there the matter stands. This is diplomacy fighting for war advantage in time of peace.

These are only high spots of the general problem of foodstuffs and raw materials as related to war plans, that in war may call navies to far and unexpected fields of action. Think carefully before you tie the Navy hand and foot and throw it into its home ports while your interests as well as those of humanity, stretch across many seas into many lands.

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Report of the Board of Directors of the American Academy of Political and Social Science for the Year Ending December 31, 1923

I. REVIEW OF THE ACADEMY'S ACTIVITIES

IT is the source of very great gratification to the members of your Board to be able to report notable progress during the year 1923 in the activities of the Academy. The vision of the founders of the Academy in organizing an institution entirely free from partisan affiliations for the consideration of our great national problems has placed the Academy in a position to perform with each year increasing national service. An ever widening group of our citizens is looking to the Academy for enlightenment, and even for guidance. With each year the influence of the Academy's publications is strengthened.

During the present year the Academy has held a series of national conferences, which have attracted widespread attention, and it is the hope of your Board that in the course of time all the Academy sessions will be in the nature of national conferences, bringing together the leading authorities from all sections of the country, and presenting the subjects under discussion from widely different viewpoints.

Your Board desires again to avail itself of the opportunity to express its deep appreciation of the devoted and unselfish service of the Editorial Council under the able leadership of its chairman—Dr. Clyde L. King. In the editing of special volumes, the council has secured the coöperation of experts from different sections of the country, and the Board desires to avail itself of this opportunity to express its appreciation to those who have undertaken the responsibility for the editing of these volumes.

As a tribute to the memory of Dr. Simon N. Patten, who was not only one of the founders of the Academy, but also contributed so much to the development of the Academy's work, your Board decided to establish a special memorial fund of at least \$20,000—the income of which is to be used for special investigations, especially

those in which Dr. Patten was particularly interested. The total of cash pledges up to the present time amounts to \$2,924.00. It is the hope of your Board that the full amount of \$20,000 will be completed within a reasonable time.

The question of a permanent endowment fund has continued to receive the attention of your Board. We are anxious that this fund should represent the contributions of the members of the Academy, and we are, therefore, urging upon the members the desirability of making contributions, no matter how small, in order that this endowment fund shall represent the united effort of the Academy membership rather than the contribution of a few individuals.

It is increasingly evident that what the Academy needs is the opportunity to appoint a group of special research assistants or Fellows, who will devote all their time to the investigation of the economic and social problems to which the Academy is dedicated.

II. PUBLICATIONS

During the year 1923 the Academy published the following special volumes:

Public Welfare in the United States (January).

The Direct Primary (March).

Social and Economic Conditions in the Dominion of Canada (May).

America's Relation to the European Situation (July).

Prohibition and Its Enforcement (September).

Psychology in business (November).

III. MEETINGS

During the year that has just come to a close the Academy held the following sessions:

January 20, The Naval Policy of the United States.

February 24, The County Jail and the Treatment of the Criminal.

March 17, Internationalism—A Hope for the Future.

May 11 and 12, The Twenty-Seventh Annual Meeting—America's Relation to the European Situation.

November 16 and 17, The Price of Coal—Anthracite and Bituminous.

November 30 and December 1, Sessions in Commemoration of the Hundredth Anniversary of the Monroe Doctrine.

IV. MEMBERSHIP

During the year 1923 the Academy received 1,269 new members and 140 new subscriptions, or a total of 1,409. The Academy lost 77 members by death; 675 by resignation; and 198 delinquent members and 97 subscriptions were dropped. The present membership of the Academy is 7,312 members and 1,432 subscriptions, making a total of 8,744.

V. FINANCIAL CONDITION

The receipts and expenditures of the Academy for the fiscal year just ended are clearly set forth in the treasurer's report. The accounts were submitted to Messrs. E. P. Moxey Company for audit, and copy of their statement is appended herewith. In order to lighten the expenses incident to the Annual Meeting a fund of \$2,254 was raised. The Board desires to take this opportunity to express its gratitude to the contributors to this fund.

VI. CONCLUSION

Your Board is still giving careful attention to the matter of establishing Academy centers in the different sections of the country. We are conscious of the fact, however, that to undertake this larger work, it will be necessary greatly to increase the Academy's staff, and also to provide for a salaried director. The Academy now enjoys the services of a group of men who give their time and energy to the work without any compensation other than the satisfaction that comes from performing a service to the nation. If, however, Academy centers are to be established in different sections of the country, an administrative organization will

be necessary, far more elaborate than that which exists at present. Your Board would greatly appreciate the expression of opinion of the members of the Academy on this important step.

In conclusion, we desire to emphasize the importance of the more active participation of our members in the work of the Academy. With a membership distributed throughout every state of the Union, the Academy through the active interests of its members will be in a position greatly to strengthen its national influence.

EDWARD P. MOXEY & Co.

Real Estate Trust Building, Philadelphia

January 17, 1924.

CHARLES J. RHOADS, ESQ., TREASURER,
American Academy of Political and Social Science, Philadelphia, Pa.

Dear Sir:

We herewith report that we have audited the books and accounts of the *American Academy of Political and Social Science* for its fiscal year ended *December 31, 1923*.

We have prepared and submit herewith Statement of Receipts and Disbursements during the above indicated period, together with Statement of Assets as at December 31, 1923.

The Receipts from all sources were verified by a comparison of the entries for same appearing in the Treasurer's Cash Book with the record of Bank Deposits and were found to be in accord therewith.

The Disbursements, as shown by the Cash Book, were supported by the proper vouchers in the form of cancelled paid checks or receipts for moneys expended. These were examined by us and confirmed the correctness of the payments made.

The Investment Securities listed in the Statement of Assets were examined by us and were found to be correct and in accord with the books.

As the result of our audit and examination we certify that the statements submitted herewith are true and correct.

Yours Respectfully,

(Signed) EDWARD P. MOXEY & Co.,
Certified Public Accountants.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR FISCAL YEAR
ENDED DECEMBER 31, 1923

Cash Balance January 1, 1923. \$8,474.09

Receipts

Members' Dues.	\$34,397.04	
Special Donations.	2,254.00	
Subscriptions.	6,710.10	
Sales of Publications.	3,765.54	
Securities Sold or Matured.	7,455.00	
Interest on Investments and Bank Deposit.	5,970.06	
Endowment Account.	100.00	
Patten Memorial Fund.	822.00	
Gain on Sale or Maturity of Securities.	45.00	
Sundries.	43.75	
		61,562.53

\$70,037.52

Disbursements

Office Expense.	\$4,240.75	
Philadelphia Meetings.	7,981.34	
Publicity Expense.	6,473.16	
Publication of <i>The Annals</i>	27,905.75	
Membership Records.	2,876.81	
Sale of <i>The Annals</i>	457.43	
Securities Purchased.	11,646.07	
Discounts and Collections.	20.59	
		61,601.90

Cash Balance December 31, 1923. \$8,435.62

Assets

Investments (Book Value).	\$121,313.50	
Cash:		
In Academy Office.	\$400.00	
In Treasurer's Hands, Girard Trust Company.	8,035.62	
		8,435.62
		\$129,749.12

Book Department

THOMPSON, WALTER, PH.D. *Federal Centralization*. Pp. 399. Price, \$2.75. New York: Harcourt, Brace & Company, 1923.

The increase of national authority is attracting more attention than at any time since the Civil War. The important powers which have recently been taken over by the Federal Government have strengthened the popular interest in this subject. Dr. Thompson's work is therefore most timely. The author divides his subject into four parts:

1. Constitutional aspects.
2. A description of national social legislation.
3. An outline of national economic laws.
4. The problems and difficulties arising from national centralization.

In Part I, the chief attention is given to the Federal commerce and tax powers, the postal clause and treaties. Here the author shows clearly and accurately the gradual growth of Federal authority resulting from the broadening of these clauses of the Constitution.

In Part II, the author describes the legislation against lotteries, vice, impure food and drugs, child labor and the attempts to promote education and public health and to suppress the sale of intoxicants.

In Part III attention is given to railway and shipping regulation, the anti-trust laws, the act requiring publicity and regulating trade competition, also the Federal regulation of labor problems.

In Part IV, following the preceding survey and description of the facts of concentration, the author presents some of his conclusions as to the substantial difficulties which are bound up with our growing nationalization.

Dr. Thompson frankly discards all quibbles over the constitutionality of this or that exercise of Federal power and asks: Is further centralization advisable? He finds that this question is facing every large national government whether it is federally organized like our own, or not. In America

he holds that it is better to avoid Federal regulation by indirect and devious routes such as the use of the tax power. Our Federal Government has not adopted a comprehensive, constructive program of legislation on commercial subjects nor has it drawn up any systematic plan of administrative authorities to enforce the national regulation except in matters dealing with the railways and business combinations. Here the two great national commissions have been organized on a scientific basis. We should have both a legislative and an administrative policy, in keeping with the breadth and magnitude of national problems.

The author considers the problem of national unity and points out that the presence of some 14,000,000 people of foreign birth, in addition to the colored population of the South, delay the attainment of this unity. There are also distinct sectional and local differences leading the people of each district to regard national questions from distinct and separate viewpoints. The author points out that various writers have dwelt on the great advantage of diversity of regulation by state rules on many problems. The possibility that experiments may be made in each state and watched by the others, offers a benefit which should not lightly be discarded for centralization. Such state experiments as the minimum wage for women, the regulation of employment bureaus, mothers' pensions, the suppression of the social evil, a probation of adult first offenders, the juvenile court, municipal ownership of utilities, factory sanitation, etc., would be highly dangerous were they made by the central Government for the nation as a whole. Political progress built on local experiments is far more apt to be sound and to avoid costly failures of wide scope than it would be were our regulative and governmental powers further centralized.

The transfer of authority to the national Government encourages congressional log-rolling. The Wisconsin congressman who

is interested in filled cheese, but cares nothing for cotton, may support the cotton legislation of the Georgia member in return for the latter's vote on filled cheese.

The personnel problem also threatens to be a serious one in the author's view. It has two sides, its effect on the government and upon the people. A distant, remote administrative commission is always in danger of becoming bureaucratic in its methods. Burdened with many duties it must systematize its work according to fixed, rigid standards and it thus loses the personal touch and becomes a routine body. Again, the people themselves suffer a depressing influence from remote government. In the state they can control commonwealth affairs. They can and do write to administrators and lawmakers. But this is not possible with a centralized control at Washington. There are inconvenient delays and mechanical solutions of problems. Red tape is prevalent in all large national governments where centralization is practiced.

Again, on the score of democracy the author indicts centralization. The people cannot possibly be interested in government unless the individuality and autonomy of local affairs are retained. Leaders must have local contact with the people. Direct popular interest is vital to the soul of democracy. A democracy with a disinterested *demos* is less fortunate than a despotism with a benevolent despot.

And where government supervision of industry is undertaken in any form centralization is even more unsatisfactory. Here the author cites the experience of England and France and points to the efforts now being made in those countries to decentralize.

Summing up, the author finds that some subjects like transportation lend themselves naturally to national regulation while others like morals should be left to the states. In spite of the general declamations against "federal usurpation," the author finds that Congress has not thus far overstepped reasonable bounds to any serious extent. He does criticize the lack of any line of demarkation between the state and national functions. There should be some serious systematic attempt to work out such a line.

It should be based on intelligent division of labor rather than the jealous division of power. On the whole the author endorses the view of one of the early Fathers, James Wilson.

Whatever object of government is confined in its operation and effect within the bounds of a particular state, should be considered as belonging to the government of that state; whatever object of government extends in its operation or effects beyond the bounds of a particular state, should be considered as belonging to the Government of the United States.

This part of the book is less convincing since it is hard to find important matters which affect only a single state.

Finally, the author holds it essential that Congress in expanding its activity in social and economic regulation shall confine itself strictly to those matters which do not require close regional touch.

Dr. Thompson has performed a real service in sketching the recent progress of Federal legislation on important commercial and financial matters and in outlining clearly the constitutional basis for these powers. His book is clear and interesting at every point. Some will disagree emphatically with Dr. Thompson's conclusions and will even assert that the weaknesses of centralization as depicted in his concluding chapters are not incurable nor even are they necessary sequences of nationalization. This is notably true of his views on national personnel and national regulative areas. Every large successful corporation in the country faces, and sooner or later solves, exactly these problems. It is easy to believe that our national Government will do the same. Dr. Thompson having given us such an excellent survey of the general field and some of its problems, it may be hoped that he and others will now make a more intensive study of some of these problems in the same scientific spirit and with the same clarity and thoroughness that distinguish the present book.

JAMES T. YOUNG.

SANDERS, T. A. *Problems in Industrial Accounting*. Pp. 643. Price, \$5.00. Chicago: A. W. Shaw Company.

The first 65 pages of this large volume present one of the best surveys of the func-

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tions and principles of industrial costs that has ever come to my attention. There is sufficient information in these pages to justify a separate publication for those who are solely interested in having cost principles in a compact form.

The bulk of the book consists of problems widely selected and well classified according to the different elements of cost. Also considerable space is given to the analysis of cost systems coming from the more representative industries. A large selection of forms and material gleaned from different industries adds very materially to the attractiveness of the book.

CHARLES REITELL.

GESELL, ARNOLD. *The Pre-School Child*. Pp. xv, 264. Cambridge: Houghton Mifflin Company.

Each succeeding stage in the evolution of the modern movement for social betterment has carried the emphasis nearer to the inception of life. It was inevitable that a scientific approach to the problems of adult life should direct attention, sooner or later, to the welfare of children. Now, by virtue of the same logic, the pre-school age of childhood ceases to be a mere "No Man's Land," and comes to be regarded as a fertile field in the area of social endeavor. First there appeared scattered but frequent references to the "neglected gap," then came an occasional article, and finally an entire volume on the subject.

Being a "first" book means that it cannot be, nor does it aim to be, a final and authoritative summary of the subject. It is rather a suggestive book, calling attention to the biological, medical, psychological and administrative importance of the problem, together with a statement of the available resources for dealing with it, the tendencies thus far evidencing themselves, and the larger aspects which the movement presents. Two of the chapters, one on "Handicapped School Children," and the other on "The Significance of the Pre-School Period," appeared in the November, 1921, and January, 1923, volumes of *The Annals*. The remaining chapters deal with such topics as "Nurseries and Nursery Schools," "The Kindergarten," "The Pre-School Child and the Home," "Pre-Parental

Education," "The Social Control of Pre-School Hygiene," etc.

The author, who is director of the Yale Psycho-Clinic and Professor of Child Hygiene at Yale University, has presented a careful and interesting study of a virgin field. The book is well written and includes a brief but carefully selected and useful bibliography on the subject.

JAMES H. S. BOSSARD.

WOOD, EDITH ELMER, M.A., Ph.D. *Housing Progress in Western Europe*. Pp. 210. Price, \$3.00. New York: E. P. Dutton and Company.

The task of compression in a book of this kind is a difficult one. The attempt has been made by the author to survey housing progress in Great Britain, France, Belgium, Italy and Holland from the beginning of interest in the subject to the late summer of 1923. Much must be left out. We may say, however, that the author has done her work of selection well. Although the accomplishments of private individuals and associations are not neglected, most of the material deals with housing projects carried out either with government aid or directly under government auspices. In the author's view

the right to a home is everywhere conceded, not only by reformers, but by practical politicians. The providing of homes for the lower economic strata . . . has been taken over as a public utility.

Private speculative builders still serve the class which can afford to pay them a profit, but the provision of working-class homes seems in process of becoming in all countries a public function. In housing standards and actual accomplishments Europe is a generation ahead of us. The author's point of view is shown by her remark that

we have more automobiles, it is true. But which will it profit a nation more in the long run—to have 100 per cent of its people living in good wholesome homes, or to have 50 per cent rushing up and down in Fords?

Of the countries surveyed, Great Britain and Holland are definitely committed to the policy of municipal housing. The other three countries are relying more on private

initiative and coöperative non-dividend societies or on government loans to such organizations. Holland has conducted her policy with a minimum of national supervisory machinery and at less cost than any of the others. The housing standard, although theoretically the same everywhere, is distinctly higher in practice in Great Britain. In actual building Great Britain would seem to be more successful than any of the other countries. There, 240,000 dwellings are said to have been built during the years 1919-1922 inclusive, or one for every thirty-four families. This accomplishment must be considered in connection with an estimated shortage of from 500,000 to one million homes. (The latter figure was demanded by Labor.) Holland during the same years built one house for every thirteen families. Except for the work in the devastated areas in France, Italy and Belgium, these latter countries have made much less headway in realizing their plans.

Architecturally and from the standpoint of durability the British houses seem most satisfactory; and there, also, the garden suburb idea has been carried out with better results than in Holland and Belgium where the barrenness of the land prevents its ready use, or in France and Italy where the high apartment house is still in favor. It is interesting to note in the author's discussion of British housing schemes, her favorable opinion of the work of the Building Guilds, organized under the influence of the school of thought headed by A. J. Penty, S. G. Hobson and G. D. H. Cole. Statistics are lacking of a nature to show accurately the cost to the taxpayer of the various government housing schemes, but the author seems inclined to subordinate this to the social betterment to be attributed to better housing. On this point, however, she feels that within a comparatively short time readjustments in wages and building costs will make it possible for wholesale construction of houses to take place on an "economic-at-cost basis."

To one familiar only with the literature of the subject the author would seem a little too optimistic with regard to the future and a bit too sanguine about results to date. For example, her commendation of the British housing schemes does not check

with the opinions of some on the ground who are equally sympathetic towards government housing.¹ We should like also to hear more definitely whether the housing schemes discussed have ended as they often do in turning out the lower classes and in creating new slum areas. The necessity of compressing much material into little space detracts not a little from the readability of the book. This very fact, however, adds greatly to its value as a clear statement in compact form of results to date.

An appendix gives an analysis of existing Spanish housing legislation and a summary of housing progress in Switzerland. There is also a five-page bibliography and an adequate index.

LANE W. LANCASTER.

ENOCK, ARTHUR GUY. *The Problem of Armaments*. Pp. 196. Price, \$1.50. New York: The Macmillan Company, 1923.

Mr. Enock divides his discussion into three parts: (1) armaments and their causes; (2) the extent of the problem; (3) arguments, opinions and steps toward solution. The statements presented are for the most part of the usual sort, and at times the analysis is far from satisfactory. South American countries (mentioned on page 31) hardly support the view that disarmament is really feasible; warlike expenditures cannot be ascertained so readily as he assumes (p. 34), nor is it correct to contend without qualification that "the cause of war is armaments" (p. 162). Discussions of war and peace are important, but more careful analysis is needed.

RAVAGE, M. E. *The Malady of Europe*. Pp. 250. Price, \$2.00. New York: The Macmillan Company, 1923.

This volume is one of the most readable that has come to the reviewer's attention. Mr. Ravage knows how to write clearly and forcefully. Also, he is disillusioned to the point of cynicism. He is discouraged over the future, and with reluctance presents at the end a "diffident program" which he quite evidently does not expect to see adopted.

¹ See C. F. G. Masterman's *England After War*, pp. 188-194.

With much that he says we cannot disagree. Our war spirit did become hysterical; not all responsibility for the war rests upon Germany, even though Berlin may have "struck the fatal match in 1914"; there was too much victory in 1918 rather than too little; the Russian Government is by no means as black as it has been painted; President Wilson did make mistakes and serious ones.

Nevertheless, one need not condemn all Americans five years after the war by saying (p. 13): "At one end, a handful of petrified militarists, at the other, a fringe of fossilized internationalists, and between the two the nation—the hundred millions of complacent, self-justified crusaders who have forgot the ardent quests of their late youth and glory in the burnt-out craters of their idealism." Everywhere in the volume is exaggeration of statement. If it were only true that black is always black and white always white, the problem would be easier. Unfortunately the world is filled with multitudinous shades of gray. In the attitude of each country there is much to blame, but also much to praise—even in Europe.

Still Mr. Ravage's volume is tremendously worth while. Sober, accurately balanced analyses will not catch our attention. And in the meantime it is almost, if not quite, true, as he tells us, that there are "no encouraging signs anywhere. The outlook is as black as can be." The volume should be read widely in the hope that it will aid in jolting us from our complacency.

ERNEST MINOR PATTERSON.

MEMORANDUM ON PUBLIC FINANCE LEAGUE OF NATIONS. Geneva, Switzerland, July, 1923. Pp. 202.

Those interested in the purpose to which the taxpayers' money is now being spent in different countries will find the *Memorandum on Public Finance, 1922*, issued by the League of Nations under date of July, 1923, of outstanding value.

Supplemental to this should also go the *Report on Budget Expenditure on National Defence 1913 and 1920-1922*, issued under date of September, 1922, and the *Statistical Enquiry into National Armaments—Part I, "Peace-Time Military, Naval and Air Forces (1923),"* and Part II, "Budget

Expenditure on National Defence 1921-1923."

The authorized agent for the Publications of the League of Nations in the United States is the World Peace Foundation, 40, Mt. Vernon Street, Boston 9, Mass.

C. L. K.

WILLIAMS, E. T. *China: Yesterday and Today*. Pp. 596. Price \$2.00. New York: The Thomas Y. Crowell Company, 1923.

It is an ambitious undertaking to try to compress within the limits of one volume a comprehensive account of China's ancient civilization, and at the same time to describe the present movement towards its transformation. Only one of exceptional qualification for the task could undertake it as successfully as does Professor Williams.

The writer lived in China before the tendency to change became marked. He witnessed the downfall of the Manchu Dynasty and the establishment of the Republic, and saw initiated the great reforms which have wrought such havoc with old-time manners and conditions. This volume is the outgrowth of his experiences and observations in thirty-five years of close association with Chinese affairs, supplemented by such research as a very busy life would permit (pp. viii-ix).

Thus the author describes his qualifications. To this it may be added that he went to China as a missionary, broadened his experience and his opportunities for observation by service of his government as Interpreter, Secretary of Legation, and Chief of the Far-Eastern Division of the State Department, and that his qualifications as a student were enhanced by a good command of the Chinese language. All of this helps to establish his right to attempt such a volume.

Over half of the book (15 chapters) is concerned with Chinese civilization in its non-political aspects. Here are to be found its best chapters. The geography of the country and the origin of its people; the social system, rooted in the family and the village; the economic life, both agricultural and industrial; and the religious systems, Confucianism, Taoism and Buddhism. All are treated broadly and well by one who realizes that the real China is to be found

beyond the treaty ports. Because of this realization, Professor Williams does not overestimate the extent to which China, with her broad territories and four hundred millions of people, has been changed by the events of the past several decades.

The historical and political chapters are less satisfactory. Most noticeable is the lack of description of the political system either of the Empire or the Republic; the inadequate account of the Korean question and the Sino-Japanese war; and the meager treatment of the development of the spheres of interest. On the other hand, the story of the coup d'état of 1898 and the Boxer movement is unusually interesting. When we turn to the reform movement under the Manchus (1901-1911) we find an excellent account of all of its phases except the political. The reader would also expect to find a better account of the attempt to set up and operate a Republic from a writer with the knowledge and experience of Professor Williams.

No criticism, however, should be allowed to obscure the fact that the literature on China has received a notable addition in this volume, which can be classed properly as indispensable for the student of Chinese civilization. Its value is enhanced by the addition of a bibliography, an historical chronology, a valuable appendix and a map.

HAROLD M. VINACKE.

THE PAPERS OF SIR WILLIAM JOHNSON.

Prepared for publication by the Division of Archives and History, James Sullivan, Ph.D., Director and State Historian, Volumes I-III. Pp. li, 931; xv, 900; xiv, 997. Price, \$7.50. Albany: University of the State of New York, 1921-22.

The importance of a knowledge of Indian relations as affecting the momentous struggle between England and France for the possession of North America cannot be exaggerated. No one in the English Colonies had a greater influence over the Indians or was more intimately associated with them in the quarter of a century before the war than Sir William Johnson. In consequence, his papers, both those of an official and a private character, form an invaluable source of information, not only

for the political and military but also for the economic history of the times.

To the English the problem of maintaining friendly relations with the Indians was one of great difficulty. Not only must they be on their guard to check the schemes of the French, but also to adjust the troubles arising out of trade relations and from the constant encroachment of the settlers on the Indian lands. It is a singular fact that the British Government did not realize the importance of dealing with Indian affairs as an imperial problem until comparatively late in the history of its colonial development on this continent. Indeed, it was not until 1756, when Sir William Johnson was appointed sole agent and Superintendent of Indian Affairs for the Northern Colonies and John Stuart to a similar office for the Southern Colonies, that a serious attempt was made to substitute centralized for provincial administration. Johnson continued to fill this office until his death in 1774.

The original collection of Johnson manuscripts which was in the State Library at Albany comprised over sixty-five hundred separate papers contained in twenty-six volumes. Over one half of these were destroyed by the fire in the State Capitol in 1911. Happily two years prior to this, the state had published a calendar of the Johnson manuscripts prepared by Dr. Richard E. Day. By checking the papers salvaged from the fire with this calendar it was possible to learn just what had been lost. Fortunately some of the papers destroyed had been printed previously by the State and copies of others were procured from the Public Record Office in London and elsewhere. So far as possible the missing gaps have been filled, and even some few original manuscripts have been found in other collections, so that these volumes are as complete as they can be made.

The three volumes under review are the first installment of the existing material. They cover the years from 1738 to 1762. The contents consist chiefly of letters to and from Johnson, as well as bills, accounts, and other papers of a varied character. The most important of these relate to various phases of Indian affairs, chiefly with the Iroquois, as well as a considerable number dealing with military matters, notably the

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expedition against Crown Point in 1755, which he led.

Great credit should be given to all those who have participated in the preparation of the material and the editing of these volumes, as the task has been an unusually difficult one, owing to the condition of many of the manuscripts that survived the fire. To Mr. van Laer, the State Archivist, and to the former State Historians, Mr. Paltsits and Mr. Holden, as well as to the present editor, Dr. Sullivan, our thanks are due for the admirable manner in which the papers have been collected and edited. It is hoped that the expectation expressed by the editor that the remaining material containing the important period 1763 to 1774 may also be published by the State will be realized.

HERMAN V. AMES.

CALMAN, ALVIN R. *Ledru-Rollin and the Second French Republic*. Pp. 452. New York: Columbia University Studies in History, Economics, and Public Law, CIII, No. 2.

This monograph is a welcome addition to the curiously meager literature on the political theory and practice of the Second Republic; it contributes, also, not a little to our knowledge of the men and manners of that interesting period. Ample use has been made of extensive manuscript materials preserved in the *Bibliothèque de la Ville de Paris*, and the study is adequately documented throughout. A critical bibliography fills some twenty pages.

In a volume published in Paris in 1921 the author dealt at length with the career of Ledru-Rollin after the summer of 1849. The present work is confined quite strictly, aside from a brief introductory biographical chapter, to French politics and Ledru-Rollin's part therein, from the political banquets of 1847, presaging the Revolution, to the collapse in June, 1849, of an uprising launched by Ledru and others against the National Assembly on the ground that it had betrayed the republican cause. Within these limits, the account that is given of the course of public affairs is detailed, systematic, discriminating and informing.

Ledru-Rollin's rôle in the Second Republic was that of an ardent social reformer, a spokesman of the radical republican element, as opposed to the socialists on the one hand and the moderate republicans on the other. Like Danton at an earlier time and Gambetta at a later day, he was an opportunist, rather than a theorist; indeed his resemblance, in personal as well as purely political, matters to both the statesmen named was pronounced. He had no sympathy with the utopian ideas of the French socialists of his day, still less with the anarchism of Proudhon and the class-revolution of Karl Marx. Believing in gradual betterment through legislation and cautious experimentation, he became preëminently an advocate of the principle of universal, i.e., manhood, suffrage. With him the right to vote assumed the place occupied in the doctrines of Louis Blanc by the right to work; and Mr. Calman not inappropriately calls him "the father of universal suffrage." As minister of the interior, it fell to Ledru to work out and bring into operation a more liberal parliamentary suffrage, devoid of all property basis, than France or any other European country had yet known. The system was stifled under the Second Empire; but, revived under the Third Republic, it survives almost unchanged at the present day.

Because of the ease with which he was swayed by others, and a tendency to underestimate the strength of his adversaries, Ledru was not, in the opinion of Mr. Calman, a great party leader. As an orator, however, he is ranked very close to Thiers and Lamartine among contemporaries, and not far from Mirabeau, whose style he was accused of imitating deliberately. A generous and unfailing friend, a lover and patron of the arts, a man of exceptional integrity and honesty—he stands out as one of the fine figures in French public life, notwithstanding personal vanity which sometimes made him a bit ridiculous and a certain superficiality which left him more or less content when he had studied only one side of a question.

FREDERIC A. OGG.

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